DOCKETED	
Docket Number:	01-EP-10C
Project Title:	Enterprise Emergency Peaker Project - Compliance
TN #:	255070-1
Document Title:	Petition for Post-Certification Amendment - Part 1
Description:	N/A
Filer:	Amanda Cooey
Organization:	Ellison Schneider Harris & Donlan LLP
Submitter Role:	Applicant Representative
Submission Date:	3/14/2024 10:51:51 AM
Docketed Date:	3/14/2024

Petition for Post-Certification Amendment
CalPeak Power-Enterprise, LLC
Enterprise Emergency Peaker Project (01-EP-10C)

52-Megawatt
Battery Energy Storage System Project

Enterprise BESS LLC

March 2024

201 Enterprise Street
Escondido, CA 92029

Table of Contents

Table of Contents

List of Tables

List of Figures.....18

Appendices

1.0 INTRODUCTION

Pursuant to Title 20, California Code of Regulations (CCR), Section 1769(a)(1), CalPeak Power-Enterprise, LLC (CalPeak) hereby files this petition for amendment of the certification of the Enterprise Emergency Peaker Plant (EEPP; Docket No. 01-EP-10C) on behalf of and for the benefit of Enterprise BESS LLC. The EEPP is owned and operated by CalPeak. Enterprise BESS LLC proposes to construct and operate a nominal 52-megawatt (MW) battery energy storage system Project (hereinafter, Enterprise BESS Project). The proposed Enterprise BESS Project is located on the site of the existing nominal 52 MW EEPP located in the City of Escondido in San Diego County, California (see Figure 1, General Location Map and Figure 2, Preliminary Site Layout). Specifically, CalPeak seeks the following amendments.

First, CalPeak requests an amendment to the certification for the EEPP to allow for interconnection of the proposed Enterprise BESS Project. The amendment is a change to the project description that includes the interconnection of the BESS at the low side of the existing generation step-up (GSU) transformer at the EEPP and the use of the common facilities.

Second, CalPeak on behalf of Enterprise BESS LLC requests an amendment to the EEPP certification identifying Enterprise BESS LLC as the party that will have legal responsibility for the operation, compliance with any associated Commission Conditions of Certification, and compliance with applicable laws, ordinances, regulations, and standards (LORS) for the Enterprise BESS Project. A list of proposed BESS-only Conditions of Certification resulting from this request is attached hereto as Appendix B. CalPeak will remain responsible for operation and compliance with the Commission Conditions and applicable LORS for the EEPP.

The requested amendments will allow for the Enterprise BESS Project to be constructed and operated adjacent to the EEPP. The Enterprise BESS Project will be constructed in part to support California's current need for additional electrical energy storage available for dispatch during peak load demand time periods in the summer and would advance the State's and the California Public Utility Commission's (CPUC's) policy of 60% renewable power by 2030 and 100% by 2045 (Senate Bill 100). The Enterprise BESS Project offers the California Independent System Operator (CAISO) a reliable dispatchable energy resource to the electrical grid.

The proposed Enterprise BESS Project will not result in an increase in the EEPP's hourly or annual air emissions above currently permitted limits. The environmental impact assessment presented in Section 5 and Appendices C through G hereto concludes no potentially significant

environmental impacts are associated with the implementation of the actions specified in this Petition for Post-Certification Amendment, and that the Project, as specified herein, will comply with all applicable LORS.

Key California Energy Commission (CEC) licensing related documents for the EEPP include:

- Application for Certification (AFC) Pursuant to 21-Day Emergency Permitting Process, CalPeak Enterprise #7, CalPeak Power, LLC, May 7, 2001
- CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit, June 1, 2001
- CalPeak Enterprise #7 Escondido (01-EP-10), AFC Final Decision, June 6, 2001

Several other Petitions to Amend the CEC License have been filed by the applicant related to changes in ownership and operation. The most recent Petition posted on the CEC's website at the time this Petition was prepared is from 2019 and pertains to changing operational control back to CalPeak Power-Enterprise, LLC from NAES and changing the name of the facility to Enterprise Emergency Peaker Project. The CEC approved the petition request on July 29, 2019.

1.1 Background

The EEPP and Enterprise BESS Project will be co-located on the same CEC-jurisdictional site. Specifically, the entire Assessor Parcel No. 232-410-45-00 is owned by CalPeak. The proposed Enterprise BESS facilities would utilize approximately 1.22 acres of available open space within the overall 2.94-acre EEPP parcel, plus approximately 0.59 acre of additional land adjacent to the EEPP parcel. The proposed Enterprise BESS Project also includes offsite access road and stormwater conveyance components as well as temporary work areas on adjacent lands owned by San Diego Gas & Electric Company (SDG&E).

A lease or easement will be provided to Enterprise BESS LLC. The proposed Enterprise BESS Project includes temporary and permanent easements on lands adjacent to the EEPP parcel for a fire access road spur to the site, stormwater facilities, and temporary construction laydown and work areas. The offsite areas to be utilized are located on lands owned by SDG&E. The Enterprise BESS Project development area on the EEPP site is located within Assessor Parcel No. 232-410-45-00, which is zoned M-1, Light Industrial. The adjacent properties are a mixture of light industrial, heavy industrial and Government-Public Use zoning. The subject property is bordered to the north by Auto Art Paint & Body, beyond which is on Auto Park Way. The subject property is bordered to the east and southeast by multiple commercial buildings which are part of the Enterprise Industrial Park. The subject property is bordered to the south by the SDG&E Palomar

Energy Center and to the west by vacant, undeveloped land owned by SDG&E, beyond which is Citracado Parkway.

The proposed BESS site area on the EEPP site has been previously disturbed with historical agricultural use, and development of the EEPP in the early 2000s. Given the limited area available for BESS development on the EEPP site, BESS development will require site topography modification including excavation and removal of the existing cut slope area in the southern portion of the EEPP site. The proposed design includes an engineered retaining wall to be installed along the southern property boundary area. This area includes biological habitat, including non-native grassland and disturbed Diegan coastal sage scrub that was previously protected from development during the permitting for the EEPP. Biological surveys to U.S. Fish and Wildlife Service protocol standards were conducted in the 2nd and 4th quarters of 2023 and the 1st quarter of 2024 and determined that Coastal California gnatcatchers were not present on the EEPP site and/or adjacent study area to the south and west.

The proposed Project does not involve removal of the coniferous trees that were installed along the western, northern, and eastern EEPP site perimeters as part of the EEPP landscape plan which provides visual screening for the EEPP. The proposed Project includes a short new fire access road segment to be installed on private land owned by SDG&E to the west of the southwest portion of the EEPP site. An approximately 300-foot-long, 20-foot-wide easement along the western site border on SDG&E land will be needed for installation and maintenance of planned stormwater facilities (buried pipe) that will discharge and flow to an existing detention basin on the SDG&E property. In addition, the proposed Enterprise BESS Project includes use of an approximate 20-foot-wide strip of SDG&E land directly adjacent to the southern and southwestern borders of the EEPP site for retaining wall construction. The Enterprise BESS Project will mitigate project impacts in accordance with CEC and other regulatory requirements, as applicable.

The Project will contain stacked containerized battery systems with internal heating ventilation and air conditioning and internal fire detection and fire suppression systems in each container, battery management systems, stacked power conversion systems (also called inverters), transformers, and electrical conductors. The Project will also include an approximately 400-foot-long underground 13.8 kilovolt (kV) gen-tie line to connect the BESS to the existing EEPP switchyard GSU transformer. The Project includes construction of an access road spur to the southwest portion of the BESS site from an existing SDG&E access road, which connects Citracado Parkway to the existing SDG&E Palomar facility to the south. The Enterprise BESS Project includes the addition of a new offsite stormwater conveyance component consisting of buried pipe adjacent to the western EEPP property on land to be leased by SDG&E (approximately 25 feet wide by 300 feet long with 20 feet of the width on leased SDG&E land and 5 feet on the western

boundary of the EEPP parcel). This new stormwater conveyance will be designed to carry stormwater via gravity flow from the southern portion of the EEPP site where the proposed BESS facilities are located to an existing stormwater conveyance which outfalls into an existing detention basin on SDG&E land to the northwest of the EEPP property.

The Enterprise BESS Project will connect to the grid through the low side of the existing 13.8 kV/69 kV GSU at the adjacent gas-fired EEPP. The high side of the existing GSU at the EEPP is connected to an existing 69 kV line that connects to an SDG&E substation located approximately 0.5 mile to the north of the EEPP. The EEPP and Enterprise BESS Project will share the following common facilities: GSU, gen-tie, and a common point of interconnect (POI) with the CAISO controlled/SDG&E owned transmission system.

While they will be co-located, the EEPP and Enterprise BESS Project will not be operated in a hybrid configuration. Instead, the EEPP and the Enterprise BESS Project will operate independently and will be entirely separate resources. The EEPP and the Enterprise BESS Project will each have their own metering equipment and CAISO Resource ID numbers. The operational outputs of the EEPP and the BESS will be coordinated to not exceed the CAISO Aggregate Capability Constraint of 52 MW at the POI. The Enterprise BESS Project would be charged exclusively from the grid, particularly when excess renewable energy is available, storing this energy for peak periods when renewable energy is less available, resulting in lower total greenhouse gas emissions. Furthermore, dispatches from the Enterprise BESS Project would replace energy that would otherwise be generated by the adjacent gas-fired EEPP.

The battery system will be controlled by an Energy Management System (EMS) controller, which will be connected to the existing Power Plant Control (PPC) system at the EEPP. The direct current block EMS will ramp up and down as directed by the EEPP PPC to not exceed 52 MW at the point of interconnection (POI). The PPC active power control at the EEPP consists of power curtailment, ramp rate control, frequency control, power limit control and plant start and shutdown. The PPC controls active power injection at the POI such that EEPP never exceeds the maximum MW based on interconnection request. The power curtailment feature of the PPC maintains active power at POI below the curtailment setpoint. The EEPP and BESS would operate simultaneously during ramp up and ramp down between BESS and EEPP operation, but the combined output would never exceed 52 MW at the POI.

The proposed BESS facility would consist primarily of stacked modular battery storage system enclosures and inverters installed on concrete pad, drilled pier, or driven pile foundations. Battery technologies being considered are lithium iron phosphate (LFP) and lithium nickel manganese cobalt oxide (NMC) or other technologies that may be available as the Enterprise

BESS Project undergoes final design. Batteries would be installed in enclosures that are electrically connected together to reach the desired output of BESS. The medium voltage transformers and inverters would be located adjacent to the enclosures they serve. Approximate dimensions for the battery enclosures vary but are typically in the range of 8 feet wide by 20 feet long by 9.5 feet high. It is possible that enclosure dimensions could vary. Enclosures would be stacked given the space limitations on the available site area. Technology selection post-Certification will not affect the BESS's potential impacts or footprint, given that all technologies are enclosed, housed systems.

Battery output degrades over time requiring replacement and/or additional battery bank modules ("augmentation"). Allowance for this work and the physical enclosures required will be made during construction of the BESS. The Enterprise BESS Project includes relocation of existing gas metering equipment at the EEPP to make room for the BESS equipment.

1.2 20 CCR Section 1769 Information Requirements

The following sections contain the information required pursuant to Title 20, CCR, Section 1769(a)(1).

2.0 DESCRIPTION OF PROPOSED CHANGES

This section addresses the requirements of Title 20, CCR, Section 1769(a)(1)(A).

2.1 Enterprise BESS Project Overview: Description of the Proposed Modification

2.1.1 Existing Facility Overview

The EEPP is a nominal 49.5 MW simple-cycle, natural gas-fired peaking power plant located on approximately 2.94 acres of land owned by CalPeak. Key features of the EEPP include one office trailer, two combustion turbines, which are connected to a single generator, and associated primary and secondary control houses. Ancillary structures include natural gas intake and compression areas, a selective catalytic reduction system for controlling nitrogen oxide (NOx) emissions, primary and auxiliary oil-filled electrical power transformers, and various aboveground storage tanks (ASTs) containing aqueous ammonia, water, wastewater, and diesel. In addition, there is a gas metering station located on the southwestern portion of the site. An in-ground oil/water separator (OWS) is located in the north-central portion of the EEPP property, east of the switchyard and west of the water ASTs. An in-ground drainage system utilizing floor drains within the turbine and generator enclosures routes equipment wash water and incidental leaks from collection pans to an in-ground collection sump, from which it is pumped to a wastewater AST. Additionally, stormwater that collects in the in-ground containment for the

aqueous ammonia AST, the transformer containment areas, and the cable trays is routed to an in-ground OWS prior to discharge to the drainage swale located on the northwest side of the plant.

The stormwater runoff from the proposed Enterprise BESS Project will be routed via gravity flow for integration with the existing stormwater collection and discharge system at the EEPP. The proposed Enterprise BESS Project also includes the addition of a new offsite stormwater conveyance component consisting of buried pipe adjacent to the western EEPP property on land to be leased from SDG&E.

The remainder of the subject property consists of a paved and/or gravel driveway and vegetation around the majority of the site perimeter. Mature coniferous trees planted as part of the CEC and City of Escondido approved landscape plan associated with the permit approvals for the EEPP in 2001 are present around the northern, western, and northeastern site perimeters. Coniferous trees and ornamental landscaping are also present along the south side of the entrance driveway on the southeastern portion of the EEPP site. Disturbed native vegetation and non-native grassland are present on the southwestern portion of the site on, and south of, the existing cut slope.

2.1.2 Planned Modifications

The key components of the proposed Enterprise BESS Project are listed below.

- Batteries with up to a nominal 52 MW hours (MWh) of energy production capability to be located on the southern and eastern portions of the overall approximately 2.94-acre EEPP property. The currently envisioned maximum output of the Enterprise BESS Project is 52 MW at the POI.
- The BESS development components, including batteries, inverters, augmentation, site access roadways, and underground 13.8 kV cable route are shown on the Preliminary Site Layout (see Figure 2).
- The battery storage technologies being considered are LFP and NMC or other technologies that may become commercially available as the BESS project undergoes final design.
- Site development for the BESS facilities will require removal of vegetation, site grading and excavation of soil and re-compaction to accomplish site stormwater control and to support concrete, drilled pier, and/or driven pile foundations.
- In order to create the needed level space to install the proposed BESS facilities, the sloping hillside on the southwestern portion of the EEPP site will need to be cut and levelled to

near the property line requiring installation of an up to approximately 28-foot-tall retaining wall at the property line.

- The BESS project will utilize the limited available open areas with the overall EEPP property for temporary construction laydown as well as offsite laydown on a previously disturbed site to be identified.
- Site access for the BESS project will include the existing site entrance at the southeast portion of the site as well. In addition, a new fire access road spur will be constructed to connect the southwestern portion of the site to an existing SDG&E access road to the west which connects to Citracado Parkway. The new access road spur will function as a permanent emergency fire access road.
- The Enterprise BESS Project includes the addition of a new offsite stormwater conveyance component consisting of buried pipe adjacent to the western EEPP property on land to be leased from SDG&E.
- The Enterprise BESS Project will be connected to an existing SDG&E Substation to the north via installation of an onsite 13.8 kV cable connection to the existing GSU transformer at the EEPP switchyard which is already connected to the SDG&E Substation. No offsite transmission construction or upgrades are currently identified for the Project.
- The Enterprise BESS Project, submitted to the CAISO, would transform the existing generating facility by providing battery energy storage capabilities in combination with its existing technology. This will provide the SDG&E system with a new energy storage capability. This Project will be charged from the grid, not from the EEPP.
- This Project has been submitted into CAISO's Post-COD Modification Review Process.
- Construction site mobilization is currently anticipated to begin in the first quarter of 2025.

2.2 Construction

Construction of the Enterprise BESS Project will occur over an approximately 8- to 9-month period. Construction site mobilization is currently anticipated to begin in the first quarter of 2025. Construction hours are expected to typically start at 7 a.m. and end at 7 p.m., Monday through Saturday. Typical worker hours and equipment usage will be 8 hours/day within the 7 a.m. to 7 p.m. window.

The construction phase will be followed by commissioning, testing, and commercial operation which is planned to occur in the fourth quarter of 2025.

The primary construction activities are planned as follows:

- Construct offsite fire access road spur from SDG&E Palomar Substation fire access road to the southwestern portion of the BESS site (approximately 200 linear feet of 20-foot-wide new spur roadway).
- Site grading of the southern portion of the EEPP site will be required to create a level development area for the main BESS battery and inverter modular facilities. This activity will require removal of the existing cut slope area and installation of an up to 28-foot-tall vertical wall near the southern property line. It is planned that use of an approximately 20-foot-wide by 600-foot-long temporary construction work area will be used on the adjacent SDG&E property to the south and southwest to facilitate construction of the wall on the BESS site.
- Offsite grading and excavation to install a new subsurface stormwater pipe (up to approximately 6-foot diameter pipe pending final design) on SDG&E land adjacent to the western EEPP property boundary. It is planned that an approximately 20-foot-wide by 300-foot-long easement from SDG&E will be needed for this facility. In addition, the stormwater pipeline construction is planned to include approximately 5 feet of additional construction right-of-way width on the western border of the EEPP property for a total disturbance area of about 25 feet in width.
- Relocation of an existing gas meter station to make space for the BESS facilities.
- Relocation of an existing underground water line on the EEPP.
- Install BESS equipment foundations.
- Install underground 13.8 kV electrical cabling and communication lines.
- Set battery modules and inverters.
- Install foundations and structures at POI (i.e., GSU in peaker plant switchyard).
- Complete electrical/wire connections.
- Mechanical completion.

Key project details for the Enterprise BESS Project are summarized in Table 1.

///

///

///

Table 1
52 MW Enterprise BESS Project Details

Item	Enterprise BESS 52 MW	Comments
Onsite BESS Project Disturbance Footprint	~1.22 acres	Onsite vegetation clearing, grading and excavation will be required for site levelling, wall installation, drainage control, foundations, stacked BESS facilities, underground 13.8 kV lines, and gas meter relocation.
Offsite Spur Road	0.19acre	Includes vegetation clearing, grading, and paved access road spur construction.
Offsite Underground Stormwater Pipeline	0.14acre	Includes vegetation clearing, grading, trench excavation, pipe burial, and reclamation and revegetation. Assumed 300-foot-long, 20-foot-wide offsite easement.
Offsite Temporary Equipment Work Areas on SDG&E Property to South and Southwest for Wall Construction	~0.26 acre	Areas include existing access pathways, but will require some vegetation removal and reclamation following construction.
Total Project Disturbance Footprint: Permanent Temporary Total	 1.55 acres 0.26 acre 1.81 acres	
Construction Peak Workforce	50	
Construction Truck Trips	Peak 30/day for the first 3 months	Truck trips will include incoming equipment and material deliveries as well as export of excess cut spoil material from removal of the southern hillside. Concrete, asphalt and gravel suppliers are located within a less than 5-mile road distance from the Enterprise BESS site.
	Ave 5/day for additional 5-6 months	Truck trips will include incoming equipment and material deliveries.
Earthwork/Cut and Fill required for BESS Site Levelling	Site grading and excavation	Site preparation will include grading and excavation required to remove the cut slope along the southern property boundary area to create a level BESS development area including installation of an up to 28-foot-tall wall and foundation along the southern property boundary area. Also includes offsite fire access road spur

Item	Enterprise BESS 52 MW	Comments
		and stormwater pipeline installation. Earthwork estimated at up to ~11,000 cubic yards pending final design.
Foundation Type	Concrete pad for main BESS area facilities	Assumed that a concrete pad foundation will be used for the main BESS facility area on the southern portion of the site pending final design. It is planned that driven sheet piles will be installed along the southern property boundary prior to removal of the cut slope and installation of the wall to provide needed stability in the weathered granite parent material assumed to be present in this area pending final design. The 13.8 kV power cable is planned to be installed underground on the western portion of the EEPP site between the BESS and the existing GSU in the EEPP switchyard.
Construction Water Usage/Day	5,000 gal/day	Short-term construction water needs to be met by the existing EEPP City water supply. Water for dust control and other construction needs is estimated at up to 5,000 gallons per day for the first 1 to 2 months during site grading and leveling activities and to average 2,000 – 3,000 gallons per day for the balance of construction activities involving ground disturbance and other dust generating activities.
Construction Equipment	Various	During construction, a variety of equipment and vehicles would operate on the BESS project site and construction laydown area. Construction equipment to be utilized would be expected to include motor graders, backhoes, pile drivers, water trucks, sheep's foot compactors, front end loaders, concrete trucks, dump trucks, trash trucks, flatbed trailers, and a portable electric generator. Cranes, rough terrain forklifts, man-lifts, portable welding units, line trucks, and mechanic trucks will also be required. All equipment and vehicles would comply with applicable noise requirements of the City of Escondido. In addition, the BESS project will utilize construction equipment with Tier 4, California Air Resources Board-certified off-road diesel engines and diesel particulate filters, as applicable.
Construction Hours	7 am – 7 pm	Construction activity noise will be limited to the hours of 7 a.m. to 7 p.m. so as not to be disturbing, excessive or offensive before 7 a.m. or after 7 p.m.

Item	Enterprise BESS 52 MW	Comments
Tentatively Planned Construction Schedule	Start Date 1st Quarter 2025	Key construction activities involving ground disturbance (~ 2 months): (1) site mobilization in 1st Quarter of 2025; (2) grading activities in 1st Quarter of 2025; and (3) install foundations from late 1st Quarter of 2025 to early 2nd Quarter of 2025.
Planned Commercial Operation Date	4th Quarter of 2025	Subject to change depending on market conditions.
Maintenance Workforce	2 workers, 1 day per week on average	
Noise Levels (Ops)		Packaged inverters and accompanying medium voltage transformers may be supplied by Power Electronics or other manufacturers capable of providing equipment of similar design and capacity. Manufacturer's specifications indicate that these units generate a noise level of between 75 and 79 dBA at 1 meter. BESS battery enclosures would be provided as self-contained packaged units manufactured by CATL or other Tier 1 battery manufacturers. Battery manufacturer's specifications indicate that these units generate a noise level of 75 dBA at 1 meter.
Operational Phase Water Supply/Usage	Unmanned facility	Assumed that water may be required for Fire Water and for landscaping, as applicable. The Enterprise Peaker water supply is from the City of Escondido municipal supply. It is expected that the operational phase water needs will be minimal and will be met by using the existing EEPP City water supply, as applicable.
Battery Augmentation	Add modules	The pad foundations for the future module additions may be installed at the time of construction pending final design.
Planned Project Life	30-40 years	

2.3 Operation and Maintenance

Once constructed, the Enterprise BESS Project would be capable of operating seven days per week and 365 days per year. The BESS facilities would be designed to be operated remotely and limited customers or visitors are expected. Periodic inspections and maintenance activities would occur. No permanent onsite BESS staff are anticipated. Security would be maintained through use of the existing EEPP site security fencing. Fencing will be reinstalled where damaged during installation of the southern wall and the access road spur where it meets the southwestern site boundary. A locking security gate will be installed where the new access road spur intersects the

BESS site and a knox box or similar equipment will be included for emergency response/fire personnel access. The Enterprise BESS Project facilities would also be protected by the existing security measures at the EEPP.

Operation and maintenance of the Enterprise BESS Project would generate minimal noise, primarily from fans used to cool electrical equipment and transformers. The Enterprise BESS Project facilities will be designed to comply with applicable City of Escondido noise standards. Periodic on-site maintenance is expected to be required following commissioning. Operations and maintenance activities would require several workers performing visual inspections, monitoring BESS performance, executing minor repairs, and responding to needs for BESS adjustment.

It is anticipated that battery module augmentation via installation of additional battery enclosures will be required to make up for decreased battery performance over time. The frequency and extent of such augmentations over the life of the Enterprise BESS Project will be determined based on battery performance monitoring. The expected infrequent maintenance activities would generate little traffic during operations. Operations and maintenance vehicles would include light duty trucks (e.g., pickup, flatbed) and other light equipment and hand tools for maintenance. Heavy equipment would not be utilized during normal operation. Large or heavy equipment may be brought to the facility infrequently for equipment repair or battery replacement.

Sanitary disposal needs for operations would be provided through the existing EEPP facilities (porta potties). Other wastes from equipment replacement or other work would be removed from the site at the end of the day, or as needed. As applicable, spent batteries removed from the site would be handled and transported as Universal Waste prior to offsite recycling. Normal operation of the Enterprise BESS Project is not expected to require use of new hazardous materials and/or to generate additional hazardous wastes in reportable quantities.

As applicable over time, combustible vegetation on and around the Enterprise BESS Project boundaries would continue to be actively managed to minimize fire risk. Additionally, the Enterprise BESS Project would comply with all applicable City of Escondido fire standards.

2.4 Decommissioning

The proposed Enterprise BESS Project is currently anticipated to be capable of operating for 30-40 years or more. Once BESS operations are terminated, the facility would be decommissioned in accordance with then-applicable LORS. Many of the parts of the proposed BESS systems are recyclable, including a substantial percentage of the battery and other electrical components.

Spent batteries would be managed and transported as Universal Waste prior to offsite recycling at an approved location. Metal, scrap equipment, and parts that do not have free-flowing oil can be sent for salvage. Equipment containing any free-flowing oil such as oil-filled transformers, as applicable, would be managed as waste and would require evaluation. Oil and lubricants removed from equipment would be managed as used oil.

3.0 NECESSITY OF PROPOSED CHANGE

This section addresses the requirements of Title 20, CCR, Section 1769(a)(1)(B).

The requested amendment would allow for the Enterprise BESS Project to be constructed and operated adjacent to the EEPP. The Enterprise BESS Project will be constructed in part to support California's current need for additional renewable electrical energy supply, especially during peak load demand time periods in the summer and would advance the State's and the CPUC's policy of 60% renewable power by 2030 and 100% by 2045 (Senate Bill 100). The Enterprise BESS Project offers the CAISO a renewable dispatchable energy resource to the electrical grid and responds to the CAISO requirement to provide additional Resource Adequacy capacity and capability to California's existing transmission system.

4.0 NEW INFORMATION OR CHANGE IN CIRCUMSTANCES THAT NECESSITATED THE CHANGE

This section addresses the requirements of Title 20, CCR, Section 1769(a)(1)(C).

The proposed modifications are not based on information that was known during the emergency certification proceeding in 2001. California's current need and goals for additional renewable electrical energy supply were not known in 2001.

5.0 ANALYSIS OF THE EFFECTS THAT THE PROPOSED CHANGE WILL HAVE ON THE ENVIRONMENT AND MITIGATION MEASURES PROPOSED

This section and Appendix A address the requirements of Title 20, CCR, Section 1769(a)(1)(D). Supporting technical study documentation is also presented in Appendices C through G.

The CEC's Final Commission Decision for the EEPP incorporated the CEC Staff Assessment dated June 1, 2001 by reference and the Commission certified the Project on June 6, 2001. The CEC Final Decision is dated June 6, 2001. The EEPP began commercial operation on September 30, 2001. The Commission-approved Enterprise Peaker Project complied with all applicable

requirements of federal law, including, but not limited to the federal Clean Air Act, Clean Water Act, and the Endangered Species Act.

The CEC Final Commission Decision for the Enterprise Peaker Project addressed the following environmental topic areas: Air Quality; Biological Resources, Water Supply and Consumption/Wastewater; Soil; Land Use; Hazardous Materials, and Noise. The 2001 CEC Staff Report included Conditions of Certification for Air Quality; Biological Resources; Cultural Resources; Facility Design; Geological Resources; Hazardous Materials Management; Land Use; Noise; Paleontological Resources; Soil and Water Resources; Public Services; Traffic and Transportation; Transmission System Engineering, Safety, and Reliability; Visual; Waste; and Worker and Fire Safety.

An assessment of the effects that the proposed Enterprise BESS Project will have on the environment with consideration of the topics addressed in the Final Commission Decision/Staff Assessment and current regulations is attached hereto as Appendix A. The assessment of potential effects presented in Appendix A (as supported with technical assessments in Appendices C through G) also considers input provided by CEC staff in 2023.

As set forth in detail in Appendix A (as supported with technical assessments in Appendices C through G), the Enterprise BESS Project will avoid or minimize potentially significant effects on the environment.

6.0 MODIFICATIONS IMPACT ON LORS COMPLIANCE

CEC Siting Regulations, Title 20, CCR, Section 1769(a)(1)(E) requires “An analysis of how the proposed change would affect the project's compliance with applicable laws, ordinances, regulations, and standards.” As discussed in detail in Section 5, approval of the modifications associated with implementation of the Enterprise BESS Project will not impact compliance with applicable LORS.

7.0 POTENTIAL EFFECTS ON PUBLIC

This section discusses the potential effects on the public that may result from the modifications proposed in this Petition for Post-Certification Amendment, in accordance with CEC Siting Regulations (Title 20, CCR, Section 1769(a)(1)(F)).

With implementation of the proposed modifications to the CalPeak Enterprise Emergency Peaker Project facility and property, the Enterprise BESS Project will have no adverse effect on the public.

The installation and operation of the BESS facilities will comply with applicable LORS and will not result in any potentially significant impacts. Therefore, no adverse effects on the public will occur because of the changes to the CalPeak Enterprise Emergency Peaker Project facility as proposed in this Petition for Post-Certification Amendment.

8.0 PROPERTY OWNERS

Section 1769(a)(1)(G) requires a "list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of any affected project linears and 1,000 feet of the project site." Consistent with privacy considerations, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 1,000 feet of the project site will be provided directly to the Compliance Project Manager.

9.0 MODIFICATIONS IMPACT ON THE PUBLIC AND NEARBY PROPERTY OWNERS

This section addresses potential effects of the project changes proposed in this Petition for Post-Certification Amendment on nearby property owners, the public, and parties in the application proceeding, in accordance with CEC Siting Regulations (Title 20, CCR, Section 1769 (a)(1)(H)).

The Enterprise BESS Project additions to the EEPP project site will not result in new potentially significant effects on adjacent landowners. The project region has changed since the Enterprise Peaker Project was licensed and constructed in 2001 and now includes the adjacent SDG&E Palomar Substation facility to the south which was vacant land planned for industrial use at the time the EEPP was licensed by the CEC in 2001. In addition, multiple commercial and industrial facilities have been constructed on the west side of Citracado Parkway to the west of the EEPP and the proposed BESS facility. As noted in the 2001 CEC Staff Assessment for the EEPP, the EEPP project site was in an industrial area and the surrounding area was planned for industrial uses. The adjacent areas to the north and east of the site had already been developed with industrial uses as of 2001. The area to the south and west of the project site was undeveloped and was, according to a then proposed specific plan, to be developed with industrial uses. The area to the west of the EEPP/BESS site is still undeveloped up to Citracado Parkway, with the exception of several roads, trails, and overhead SDG&E transmission lines.

Enterprise BESS Project construction will be short term and will not result in any potentially significant effects on the public and nearby property owners. Implementation of the Enterprise BESS Project will increase the permanently developed area on the approximately 2.94-acre Enterprise Emergency Peaker Project property by approximately 1.22 acres, primarily on the

southern portion of the property. This area has been previously disturbed and is located primarily on a cut slope that will be removed and flattened. The primary structures to be installed are relatively low profile, stacked BESS enclosures that are shorter in height than the adjacent, existing peaker facilities. Normal operation of the BESS facility will not have associated air emissions and noise levels will be within applicable noise thresholds. The Enterprise BESS Project facility will be remotely operated and will not require additional onsite workers or associated traffic generation except during maintenance and infrequent battery augmentation events. Although the Enterprise BESS Project facility will be remotely operated, EEPP maintenance personnel are present at the adjacent EEPP on a regular basis.

10.0 APPLICABLE CEQA EXEMPTIONS

Section 1769(a)(1)(I) requires a discussion of any exemptions from the California Environmental Quality Act (CEQA), commencing with section 21000 of the Public Resources Code, that the project owner believes may apply to approval of the proposed changes.

The CEC's power plant siting process is a certified state regulatory program under the California Environmental Quality Act (Pub. Resources Code, § 21080.5; 14 C.C.R. §§ 15250-15253.) As such, it is exempt from the procedural elements of CEQA, though it must adhere to the substantive requirements of CEQA. The CEC's detailed certification process is commonly described as "CEQA-equivalent." CEQA defines a "Project" in pertinent part as "…an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (Pub. Resources Code § 21065.)

In this case, the Enterprise Peaker Project was subject to environmental review in accordance with the CEC's certified regulatory program. The current operations of the Enterprise Emergency Peaker Project are not a new CEQA "Project," but are part of the existing environmental baseline. Once a project is approved, CEQA does not require that it be analyzed anew every time an action is required to implement the project. Where an Environmental Impact Report (EIR), or in this case the CEC's CEQA-equivalent certification, has been prepared for a project, CEQA expressly prohibits agencies from requiring a subsequent or supplemental EIR, except in specified circumstances, e.g., where the project will have more severe impacts as a result of substantial changes to the project or the circumstances under which it is undertaken. (14 CCR § 15162). As discussed below, the operations of the Enterprise BESS Project with the CalPeak Enterprise Emergency Peaker Project do not trigger any such requirement.

Even assuming that the Enterprise BESS Project was a CEQA "Project," the activities are categorically exempt. First, the modifications are categorically exempt pursuant to Title 14,

Section 15301 of the California Code of Regulations as a minor alteration to an existing facility. The Enterprise BESS Project described herein includes activities that constitute a minor modification to the peaker plant operations and property. With the exception of the short fire access road spur on the adjacent SDG&E parcel, the permanent BESS development related changes will be interior to the property boundary and will involve no expansion of the existing use of the Enterprise Emergency Peaker Project for power generation.

Second, CEQA Guidelines section 15303 exempts construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. The Enterprise BESS Project system will consist primarily of modular battery enclosures, inverters with MV transformers, and electrical controls and connections.

In addition, the proposed modifications associated with the Enterprise BESS Project are also categorically exempt from CEQA pursuant to Section 15061(b)(3), the "Common Sense Exemption." This exemption provides that "[w]here it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." (14 CCR § 15061(b)(3).) In this case, there is no possibility that the proposed change may have a significant effect on the environment. The proposed project will not result in an increase in the EEPP's hourly or annual emissions above the existing permitted potential to emit limits and will not require any revisions to its hourly, daily, or annual emissions or operational limits to accommodate the project. There would be no substantial adverse changes to existing baseline conditions at the EEPP site from the proposed Enterprise BESS Project. Therefore, the proposed modifications are categorically exempt from CEQA pursuant to the "Common Sense Exemption."

11.0 CONCLUSIONS

For all the reasons set forth herein, CalPeak Power Enterprise, LLC and Enterprise BESS LLC respectfully request that the CEC approve the requested Enterprise BESS Project modifications to the CalPeak Power-Enterprise, LLC, Enterprise Emergency Peaker Project pursuant to Title 20, California Code of Regulations, Section 1769(a)(1).

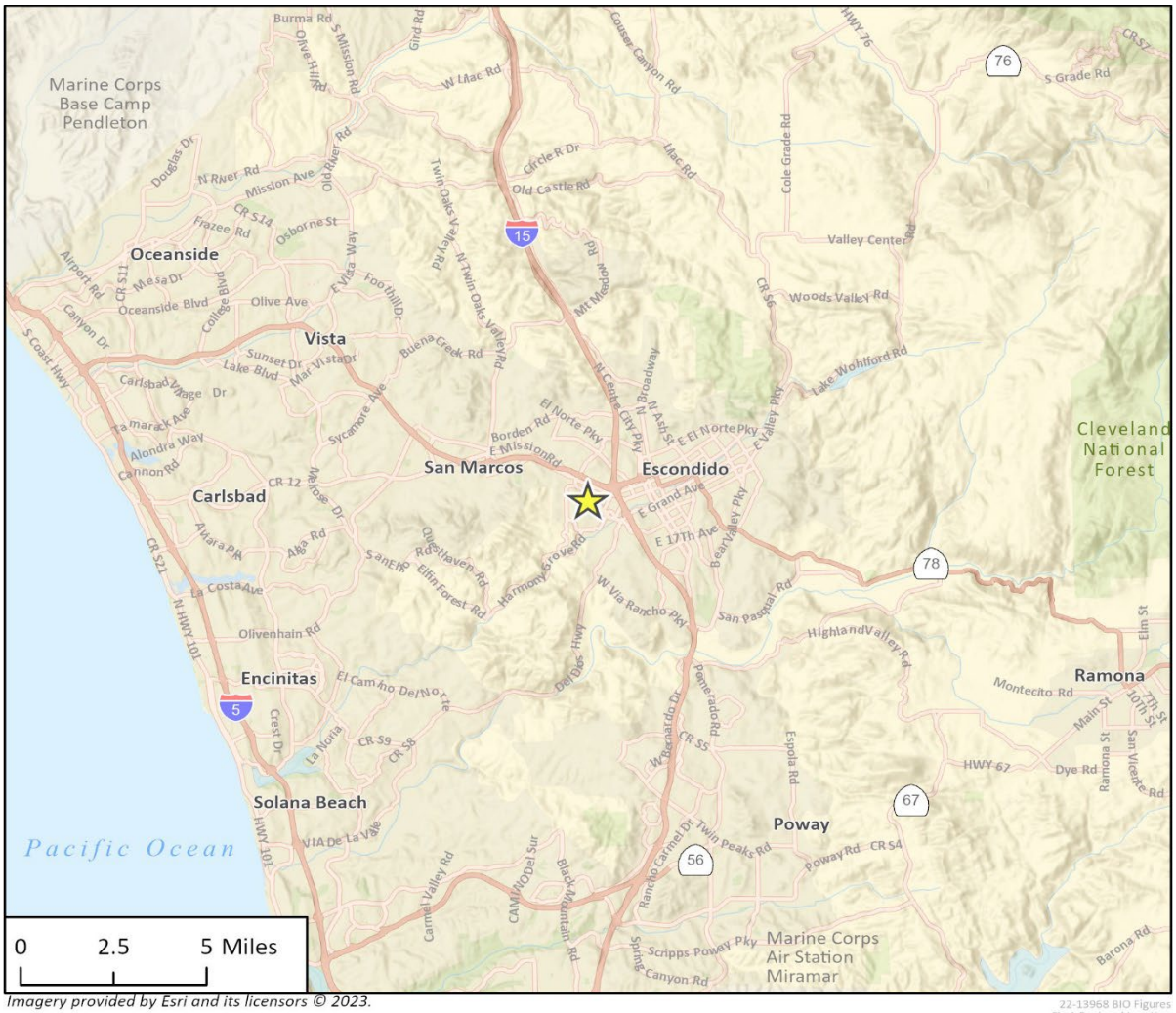
FIGURES

The following figures are attached:

- Figure 1 Regional Location Map
- Figure 2 Preliminary Site Layout
- Exhibit 1 Photosimulations of Enterprise BESS Project

Figure 1. Regional Location Map

Enterprise BESS Project

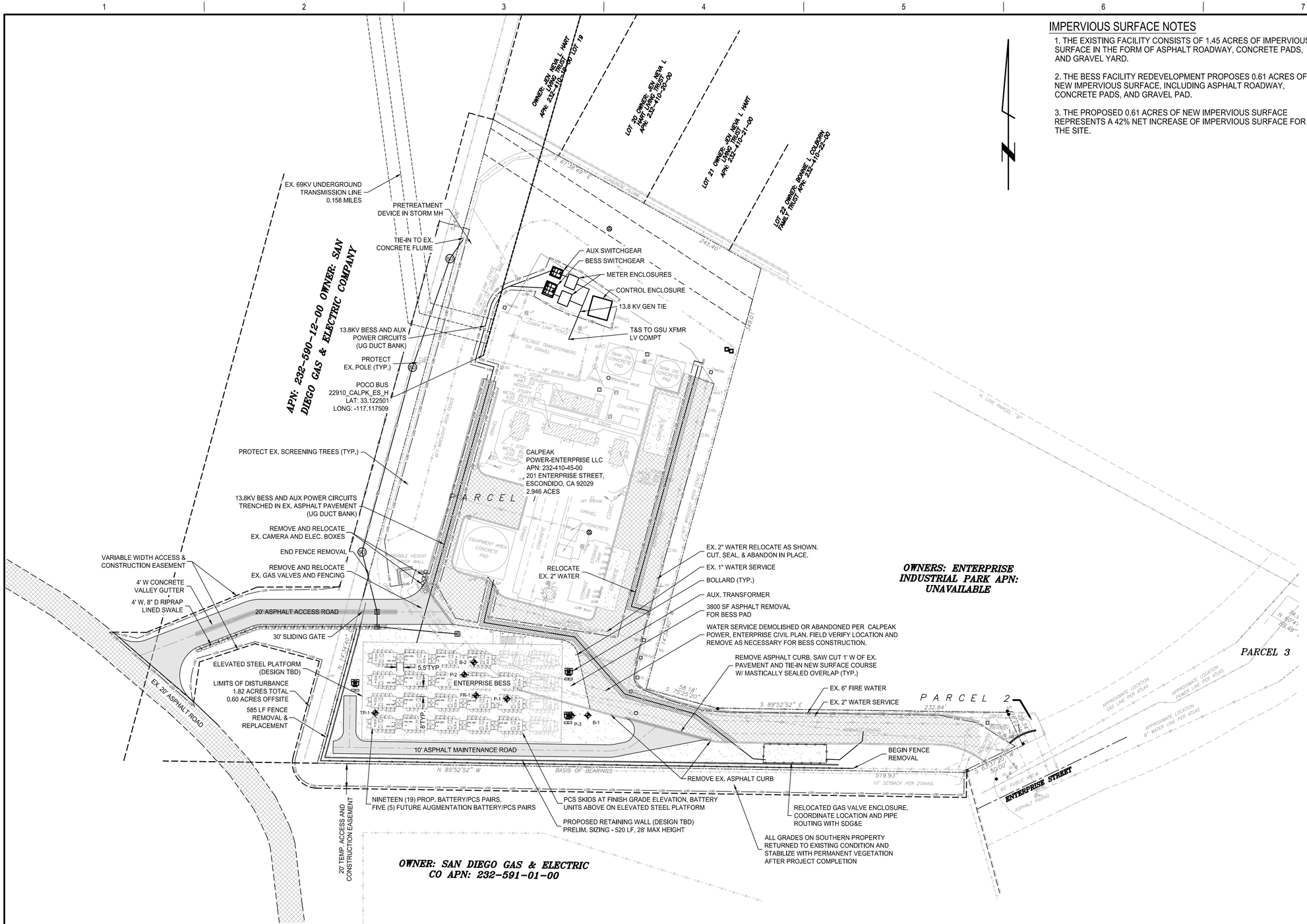


Imagery provided by Esri and its licensors © 2023.

22-13968 BIO Figures
Fig 1 Regional Location

Project Location

N



IMPERVIOUS SURFACE NOTES

1. THE EXISTING FACILITY CONSISTS OF 1.45 ACRES OF IMPERVIOUS SURFACE IN THE FORM OF ASPHALT ROADWAY, CONCRETE PADS, AND GRAVEL YARD.

2. THE BESS FACILITY REDEVELOPMENT PROPOSES 0.61 ACRES OF NEW IMPERVIOUS SURFACE, INCLUDING ASPHALT ROADWAY, CONCRETE PADS, AND GRAVEL PAD.

3. THE PROPOSED 0.61 ACRES OF NEW IMPERVIOUS SURFACE REPRESENTS A 42% NET INCREASE OF IMPERVIOUS SURFACE FOR THE SITE.

GENERAL NOTES

1. COORDINATES LISTED ARE BASED ON NSRS 2011, CALIFORNIA STATE PLANE ZONE VI, US SURVEY FOOT.

2. THE BOUNDARY AND BASIS OF BEARING IN THIS SITE PLAN ARE BASED ON THE SURVEY PROVIDED BY MRP CONTAINED WITHIN THE DRAWINGS "Enterprise & SDGE Property Boundary & Power Line Map CAD 10-13-23.dwg" AND "Enterprise & SDGE Lot Topo - CAD Ver 2023-08-24.dwg"

3. CONTRACTOR SHALL VERIFY DIMENSIONS, PROPERTY SURVEY, AND EXISTING BENCH MARKS PRIOR TO CONSTRUCTION.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES.

5. WALL AND STEEL PLATFORM DESIGN PENDING GEOTECHNICAL INVESTIGATION AND DESIGN BY GEOTECHNICAL/STRUCTURAL ENGINEER (BY OTHERS).

LEGEND

- PROPERTY LINE
- EXISTING CHAINLINK FENCE
- PROP. CHAINLINK FENCE
- EXISTING EASEMENT
- PROP. ACCESS & CONSTRUCTION EASEMENT
- EXISTING HYDRANT
- SD — PROP. STORM PIPE
- PROP. CATCH BASIN (CB)
- SD — PROP. STORM MAN HOLE (MH)
- PROP. PAD EDGE
- OHP — EXISTING OVERHEAD POWER
- EXISTING POWER POLE
- BATTERY UNITS
- PCS SKID
- FUTURE BATTERY UNIT
- FUTURE PCS SKID
- AUX POWER TRANSFORMER
- BESS — BATTERY ENERGY STORAGE SYSTEM
- 4" STATION FINISH STONE
- EXISTING ASPHALT PAVEMENT
- PROP. ASPHALT PAVEMENT
- PROP. RIPRAP
- PROP. TRENCH W/ ASPHALT REPLACEMENT
- PROP. GEOTECHNICAL TESTING LOCATION

Figure 2

THIS DRAWING WAS PREPARED BY POWER ENGINEERS, INC. FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH POWER AND POWER'S CLIENT IS GRANTED.

PRELIMINARY

NOT FOR CONSTRUCTION

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD	REFERENCE DRAWINGS
C	STORM ROUTING REVISIONS	02/20/24	JMM	JMM	TJG	*	
B	LAYOUT & MRP REVISIONS	02/07/24	JMM	JMM	TJG	*	
A	PRELIMINARY SITE LAYOUT	12/01/23	JMM	JMM	*	*	

DSGN	JMM	12/01/23
DRN	JMM	12/01/23
CKD	TJG	02/07/24

SCALE: 1" = 40'

FOR 22x34 DWG ONLY

POWER ENGINEERS

MIDDLE RIVER POWER	JOB NUMBER 246909 / REV C
ENTERPRISE	
SITE PLAN	DRAWING NUMBER C01-01

C01-01_SITE PLAN.dwg

Exhibit 1
ENTERPRISE
BESS PROJECT

1 Viewpoint Location

Project Site

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

VIEWPOINT 1

1/5/2024 • 10:58 am • Looking Northeast

1 Viewpoint Location Project Site

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

VIEWPOINT 2

1/5/2024 • 11:31 am • Looking East

2 Viewpoint Location Project Site

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

VIEWPOINT 3

1/5/2024 • 11:54 am • Looking East

3 Viewpoint Location Project Site

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

VIEWPOINT 4

1/5/2024 • 11:02 am • Looking Southeast

4 Viewpoint Location Project Site

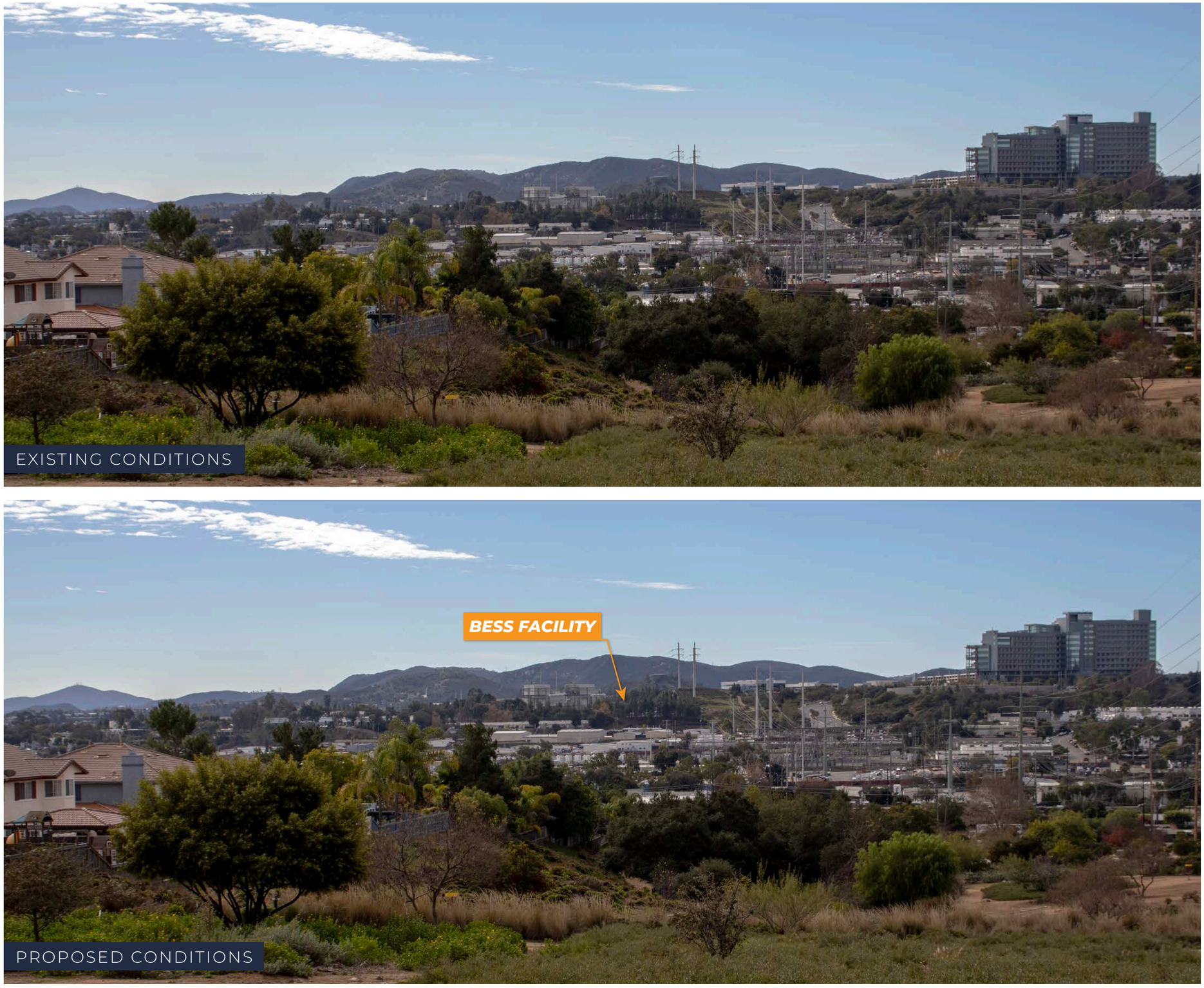
Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

VIEWPOINT 5

1/5/2024 · 12:16 pm · Looking Southwest



5 Viewpoint Location Project Site

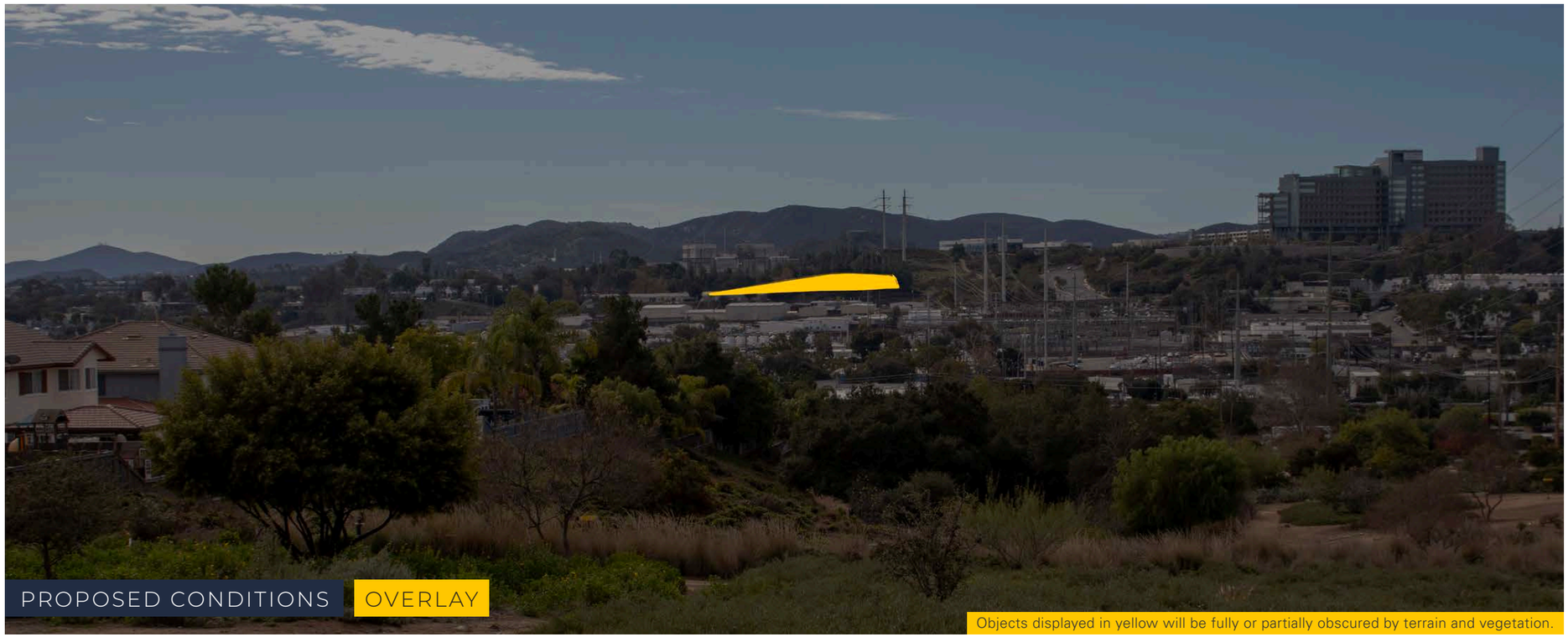
Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

VIEWPOINT 5

1/5/2024 · 12:16 pm · Looking Southwest



5 Viewpoint Location Project Site

Photo simulations are for discussion purposes only. Final design is subject to change pending public, engineering, and regulatory review.

ENTERPRISE BESS LLC

ENTERPRISE
BESS PROJECT

EQUIPMENT ELEVATIONS

ENTERPRISE BESS LLC

BATTERY CONTAINER

MV SWITCHGEAR

PCS SKID

AUX POWER TRANSFORMER

APPENDIX A

ANALYSIS OF THE EFFECTS THAT THE PROPOSED CHANGE WILL HAVE ON THE ENVIRONMENT AND MITIGATION MEASURES PROPOSED

Section 1769(a)(1)(D) requires "An analysis of the effects that the proposed change to the project may have on the environment and proposed measures to mitigate any significant environmental effects." This Appendix addresses each discipline considered in the original California Energy Commission (CEC) certification for the Enterprise Emergency Peaker Project.

Note: The sections and subsections of this Appendix A are numbered "5" to coincide with the numbering in the main body of the Petition for Post-Certification Amendment.

5.0 ANALYSIS OF THE EFFECTS THAT THE PROPOSED CHANGE WILL HAVE ON THE ENVIRONMENT AND MITIGATION MEASURES PROPOSED

This Appendix A and Section 5 of the Petition for Post-Certification Amendment address the requirements of Title 20, CCR, Section 1769(a)(1)(D).

5.1 Background

CalPeak Power-Enterprise, LLC hereby files this amendment on behalf of and for the benefit of Enterprise BESS LLC. Enterprise BESS LLC proposes to implement a nominal 52-megawatt (MW) battery energy storage system (BESS) Project. The proposed Enterprise BESS Project is located at the existing nominal 52 MW Enterprise Emergency Peaker Plant (EEPP) located in the City of Escondido in San Diego County, California.

The EEPP is owned and operated by CalPeak Power-Enterprise, LLC (CalPeak). The EEPP was licensed by the CEC in 2001 (CEC Docket No. 01-EP-10). EEPP is authorized by the California Independent System Operator (CAISO) under its Generator Interconnection Agreement (as amended) to provide up to a net of 52 MW to the grid. Given the relationship between the EEPP and the proposed Enterprise BESS, the CEC has determined that the CEC has jurisdiction over the permitting of the Enterprise BESS project. CalPeak on behalf of Enterprise BESS LLC hereby requests an amendment to the certification for the EEPP (CEC Docket No. 01-EP-10) pursuant to Title 20, California Code of Regulations, Section 1769(a)(1).

The EEPP and BESS will be co-located on the same CEC-jurisdictional site. Specifically, the entire Assessor Parcel No. 232-410-45-00 is owned by CalPeak. A lease or easement will be provided to Enterprise BESS LLC, which will own and operate the BESS within that same parcel. The proposed Enterprise BESS Project includes temporary and permanent easements on lands adjacent to the EEPP parcel for a fire access road spur to the site, stormwater facilities, and temporary construction laydown and work areas. The offsite areas to be utilized are located on lands owned by San Diego Gas & Electric Company (SDG&E).

While they will be co-located, the EEPP and BESS will not be operated in a hybrid configuration. Instead, the EEPP and the BESS will operate independently and will be entirely separate resources. The EEPP and the BESS will each have their own metering equipment and CAISO Resource ID numbers. The EEPP will remain responsible for the operations of the natural gas facility and will remain as the party responsible for compliance with the Commission Conditions and applicable laws, ordinances, regulations, and standards (LORS) for the EEPP. In like fashion, Enterprise BESS LLC will have legal responsibility for the operation of the BESS and will be the responsible party for compliance with the Commission Conditions and applicable LORS for the BESS.

The Enterprise BESS Project will connect to the grid through the low side of the existing 13.8 kilovolt (kV)/69 kV generator step-up transformer (GSU) at the adjacent gas-fired EEPP. The high side of the existing GSU at the EEPP is connected to an existing 69 kV line that connects to an SDG&E substation located approximately 0.5 mile to the north of the EEPP. The two plants will share the following common facilities: GSU, gen-tie, and a common point of interconnect (POI) with the CAISO controlled/SDG&E owned transmission system. Because the operational outputs of the EEPP and the BESS will be coordinated, the facilities will not change the CAISO Aggregate Capability Constraint of 52 MW at the POI.

The Enterprise BESS Project would be charged exclusively from the grid, particularly when excess renewable energy is available, storing this energy for peak periods when renewable energy is less available, resulting in lower total greenhouse gas (GHG) emissions. Furthermore, dispatches from the Enterprise BESS Project would replace energy that would otherwise be generated by the adjacent gas-fired EEPP.

The proposed BESS facility would consist primarily of stacked, modular battery storage system enclosures and inverters installed on concrete pad, drilled pier, and/or driven pile foundations. Battery technologies being considered are lithium iron phosphate (LFP) and lithium nickel manganese cobalt oxide (NMC) or other comparable technologies that may be available as the Enterprise BESS Project undergoes final design. Batteries would be installed in enclosures that are electrically connected to reach the desired output of BESS. The medium voltage transformers and inverters would be located adjacent to the enclosures they serve. Approximate dimensions for the battery enclosures vary but are typically in the range of 8-feet wide by 20-feet long by 9.5-feet high. It is possible that enclosure dimensions could vary. Battery output degrades over time, requiring replacement and/or additional battery bank modules (augmentation). Allowance

for this work and the physical enclosures required will be made during the final design and construction of the BESS. Enclosures would be stacked given the space limitations on the available site area. Technology selection post-Certification will not affect the BESS's potential impacts or footprint, given that all technologies are enclosed, housed systems.

The proposed Enterprise BESS facilities are located on a composite area totaling approximately 1.22 acres within the southern portion of the existing 2.94-acre EEPP site. The total construction disturbance footprint for onsite and offsite areas is approximately 1.81 acres. The Enterprise BESS Project development area on the EEPP site is located within Assessor Parcel No. 232-410-45-00 which is zoned M-1, Light Industrial. The adjacent properties are a mixture of light industrial, heavy industrial and Government-Public Use zoning. The subject property is bordered to the north by Auto Art Paint & Body, beyond which is Auto Park Way. The subject property is bordered to the east and southeast by multiple commercial buildings, which are part of the Enterprise Industrial Park. The subject property is bordered to the south by the SDG&E Palomar Energy Center/Substation and to the west by vacant, undeveloped land owned by SDG&E, beyond which is Citracado Parkway. The SDG&E land to the west includes existing transmission line facilities owned by SDG&E.

The proposed BESS site area on the EEPP site has been previously disturbed with historical agricultural use, and development of the EEPP in the early 2000's. Given the limited site area available for BESS development on the EEPP site, BESS development will require site topography modification including excavation and removal of the existing cut slope area in the southern portion of the EEPP site. The proposed design includes an engineered retaining wall to be installed along the southern property boundary.

The proposed Project does not involve removal of the coniferous trees (Canary Island pines) that were installed along the western, northern, and northeastern EEPP site perimeters as part of the EEPP landscape plan that provides visual screening for the EEPP. Several trees may need to be trimmed pending final design. In addition, several ornamental landscaping trees in the southeast portion of the site and in the offsite facility and temporary work areas will need to be removed. The Project includes mitigation for any removed trees as confirmed during final design. The proposed Project also includes an approximately 200-foot-long new fire access road segment to be installed on private land owned by SDG&E to the west of the southwest portion of the EEPP site. An approximately 300-foot-long, 20-foot-wide easement along the western site border on SDG&E land will be needed for installation and maintenance of planned stormwater facilities (buried large diameter pipe) that will discharge and flow to an existing detention basin on the

SDG&E property. In addition, the proposed Enterprise BESS Project includes temporary work area use of approximately 20-foot-wide strips of SDG&E land directly adjacent to the southern and southwestern borders of the EEPP site for retaining wall construction. The Enterprise BESS Project will mitigate project impacts in accordance with CEC and other regulatory requirements, as applicable.

The battery system will be controlled by an Energy Management System (EMS) controller, which will be connected to the existing Power Plant Control (PPC) system at the EEPP. The direct current (DC) block EMS will ramp up and down as directed by the EEPP PPC to not exceed 52 MW at the point of interconnection. The PPC active power control at the EEPP consists of power curtailment, ramp rate control, frequency control, power limit control and plant start and shutdown. The PPC controls active power injection at the POI such that export never exceeds the maximum MW capacity of the current interconnection agreement. The power curtailment feature of the PPC maintains active power at POI below the curtailment setpoint. The EEPP and BESS would operate simultaneously during ramp up and ramp down between BESS and EEPP operation, but the combined output would never exceed 52 MW at the POI.

The requested amendment would allow for the Enterprise BESS Project to be constructed and operated adjacent to the EEPP. The Enterprise BESS Project will be constructed in part to support California's current need for additional electrical energy storage available for dispatch during peak load demand time periods in the summer and would advance the State's and the California Public Utility Commission's policy of 60% renewable power by 2030 and 100% by 2045 (Senate Bill 100). The Enterprise BESS Project offers the CAISO a reliable dispatchable energy resource.

The proposed Enterprise BESS Project will not result in an increase in the EEPP's hourly or annual air emissions above currently permitted limits. The environmental impact assessment presented in Section 5 and this Appendix A concludes no potentially significant environmental impacts are associated with the implementation of the actions specified in this Petition for Post-Certification Amendment, and that the Project, as specified herein, will comply with all applicable LORS.

Given the relationship between the EEPP and the BESS, the CEC Staff has determined that the CEC has permitting jurisdiction over Enterprise BESS LLC and the BESS project. Accordingly, CalPeak makes the following requests.

First, CalPeak requests an amendment to the certification for the EEPP (CEC Docket No. 01-EP-10) pursuant to Title 20, California Code of Regulations, Section 1769(a)(1) to allow for

interconnection of the Enterprise BESS LLC project. The amendment is a change to the EEPP project description in that it includes the interconnection of the BESS at the low side of the existing GSU at the EEPP and the use of the common facilities.

Second, CalPeak on behalf of Enterprise BESS LLC requests an amendment to the EEPP certification identifying Enterprise BESS LLC as the party that will have legal responsibility for the operation of the BESS, and that will be the responsible party for compliance with the Commission Conditions of Certification and applicable LORS for the BESS. A list of proposed BESS-only Conditions of Certification resulting from this request is attached hereto as Appendix B.

Key CEC licensing related documents for the EEPP include:

- Application for Certification (AFC) Pursuant to 21-Day Emergency Permitting Process, CalPeak Enterprise #7, CalPeak Power, LLC, May 7, 2001 (deemed complete on May 16, 2001)
- CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit, June 1, 2001
- CalPeak Enterprise #7 Escondido (01-EP-10), AFC Final Decision, June 6, 2001

Several other Petitions to Amend the CEC License have been filed by the applicant related to changes in ownership and operation. The most recent Petition posted on the CEC's website at the time this Petition was prepared is from 2019 and pertains to changing operational control back to CalPeak Power-Enterprise, LLC from NAES and changing the name of the facility to Enterprise Emergency Peaker Project. The CEC approved the petition request on July 29, 2019.

5.2 Environmental Topic Areas Addressed in Final Commission Decision in June 2001

The CEC's Final Commission Decision for the CalPeak Enterprise #7 Peaker incorporated the CEC Staff Assessment for Emergency Permit dated June 1, 2001 (Staff Assessment), by reference, and the Commission certified the Project on June 6, 2001. The Commission approved the CalPeak Enterprise #7 Peaker Project as an emergency project that was exempted from the California Environmental Quality Act (CEQA) pursuant to Public Resources Code 21080 (b)(4). The CEC Staff Assessment addressed the following environmental topic areas: Air Quality; Biological Resources, Soils and Water, Hazardous Materials Management, Cultural Resources, Paleontological Resources, Noise, Land Use, Traffic and Transportation, Visual Resources, and Environmental Justice. The CEC Staff Assessment also included assessments for Facility Design and Transmission

System Engineering. Although the CEC Staff Assessment did not include assessments, it did also include Conditions of Certification for Public Services, Waste Management, and Worker and Fire Safety.

An assessment of the effects that the proposed Enterprise BESS Project will have on the environment with consideration of the topics addressed in the Final Commission Decision/Staff Assessment and current regulations is presented herein. The assessment of potential effects also considers input provided by CEC staff during consultation in 2023.

The balance of this analysis is organized as follows:

- 5.3 Air Quality and Greenhouse Gas
- 5.4 Biological Resources
- 5.5 Soils and Water
- 5.6 Hazardous Materials Management
- 5.7 Cultural Resources
- 5.8 Paleontological Resources
- 5.9 Noise and Vibration
- 5.10 Land Use
- 5.11 Traffic and Transportation
- 5.12 Visual Resources
- 5.13 Environmental Justice
- 5.14 Public Services/Fire Protection
- 5.15 Waste Management
- 5.16 Worker Safety

Based on a review and assessment of the existing CEC Conditions of Certification for the EEPP, the subset of EEPP Conditions that are expected to be applicable to the Enterprise BESS Project are presented in Appendix B (Enterprise BESS-Only Conditions of Certification). Separate technical appendices are also provided as follows: Air Quality and Greenhouse Gas Study (Appendix C), Biological Resources Technical Report (Appendix D), Cultural Resources Technical

Report (Appendix E), Noise and Vibration Study (Appendix F), and Vehicle Miles Traveled (VMT) Memorandum (Appendix G).

As set forth herein, the Enterprise BESS Project will avoid or minimize potentially significant effects on the environment.

5.3 Air Quality and Greenhouse Gas

5.3.1 CEC Certification of EEPP

The CEC Final Decision (CEC 2001a,b) noted air quality concerns expressed by the City of Escondido and some members of the public regarding potential cumulative air quality related impacts from existing and proposed power plants in the area. This concern is not applicable to operation of the proposed Enterprise BESS Project given there are no stationary source emissions associated with operation of the Project. Conditions of Certification (Condition or CoC) AQ-2 and AQ-3 required compliance with San Diego County Air Pollution Control District (SDAPCD) conditions for construction and operation of the power plant. Condition AQ-1 required the Applicant to limit fugitive dust emissions and other impacts during construction and employ mitigation measures where appropriate. CEC Condition AQ-1 regarding control of fugitive dust emissions is assumed to be applicable to the proposed Enterprise BESS Project as well.

5.3.2 Environmental Analyses

The proposed Enterprise BESS Project site is located within the jurisdiction of the SDAPCD, which has primary responsibility for assuring that federal and state ambient air quality standards are attained and maintained in the air basin. The proposed Project would result in air pollutant emissions that are regulated by the air district. The most significant volume of air emissions expected to be generated during project construction is associated with equipment use on the site, fugitive dust emissions from site grading, and from vehicle trips to and from the site. During the operation of the proposed Enterprise BESS project, no area source emissions are expected, with the exception of vehicle emissions from infrequent worker trips to and from the project site for maintenance and infrequent battery augmentation events. Emissions from Enterprise BESS Project construction and operations are calculated to be below air district thresholds established to attain and/or maintain conformance with state and federal air quality standards. At the time the EEPP project was permitted in 2001, greenhouse gas assessments were not included in the environmental review and permitting process. A GHG assessment has been prepared for the Enterprise BESS Project as requested by CEC staff during prefiling coordination, and is considered herein. CEC Condition AQ-1 for the EEPP required that a Fugitive Dust Mitigation Plan be

prepared, including specific requirements. It is assumed that the same Condition AQ-1 will apply to the Enterprise BESS Project.

In summary, no adverse impacts related to air emissions associated with construction or operation of the Enterprise BESS Project are expected to occur. For a more detailed analysis, see Appendix C, Air Quality and Greenhouse Gas Study.

5.3.3 Mitigation Measures

The Enterprise BESS project will not result in significant impacts related to air quality and greenhouse gas emissions that will require additional mitigation measures.

5.3.4 Consistency with LORS

The Project conforms to applicable LORS related to air quality and greenhouse gas emissions.

5.3.5 Conditions of Certification

The proposed modifications do not require changes to the CoCs for air quality. CEC Condition AQ-1, Fugitive Dust Mitigation Plan, is assumed to be applicable to the Enterprise BESS Project. CEC Conditions AQ-2 and AQ-3 for the EEPP are not applicable to the Enterprise BESS Project, as they relate to combustion emissions from the peaker plant.

5.3.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.4 Biological Resources

5.4.1 CEC Certification of EEPP

As discussed in the CEC Final Decision (CEC 2001a), the proposed EEPP project was located on previously disturbed vacant land adjacent to an industrial park surrounded by light industrial and commercial properties. The proposed transmission line would connect to an existing transmission corridor bordering the property, and the natural gas line would parallel existing

paved roads and traverse industrial and commercial areas. These facilities were built following CEC approval of the EEPP Project in 2001.

The CEC Staff Assessment identified Diegan Coastal Sage Scrub as occurring in small patches within habitat in the vicinity of the EEPP project, and noted that sensitive species, including the California gnatcatcher use Diegan Coastal Sage Scrub as habitat. These areas were determined to not be affected by the construction and operation of the EEPP project. Per Condition of Certification BIO-9 they were required to be fenced, and a project biologist was stipulated to be onsite to observe construction activities. Further, non-native grassland at the site was determined to provide potential foraging habitat for raptors and other wildlife. Conditions of Certification BIO-7 and BIO-8 required an approved biologist to conduct appropriate surveys to identify the extent, if any, of these species. If needed, mitigation plans were to be submitted under Condition of Certification BIO-10.

The CEC Staff Assessment addressed the concern for biological resources through avoidance of all significant non-mitigatable impacts to species and habitat, restoration of the site and the construction laydown area, and for re-establishing biological resource values upon decommissioning of the site, as provided in Conditions of Certification BIO-1, BIO-2, BIO-3, BIO-6, and BIO-11.

The CEC Final Decision determined that the Conditions of Certification proposed in the Staff Assessment provided appropriate mitigation measures for the affected biological resources.

5.4.2 Environmental Analyses

5.4.2.1 Current Baseline Conditions

Previous biological surveys and assessments for the EEPP site associated with permitting in 2001 identified various potential sensitive biological resources that could potentially be impacted by project development at the time and locations considered. The proposed Enterprise BESS Project component locations are located primarily on the southern portion of the overall EEPP property as well as adjacent to the western property boundary on SDG&E land. Several sensitive plant species are present in the BESS project disturbance footprint, including Diegan Coastal Sage Scrub and non-native grassland in onsite and offsite areas to be disturbed and cleared of vegetation during site preparation for the BESS project. This habitat, although degraded due to past disturbance, has the potential to support nesting birds and foraging raptors. Of particular importance is the potential for coastal California gnatcatcher to be present in areas to be disturbed, including the sloped area on the southern portion of the EEPP site where the BESS construction is planned to occur. In addition, the locations of the offsite fire access road spur and

stormwater conveyance pipeline planned to be constructed on the SDG&E parcel adjacent to and west of the EEPP site have the potential to support coastal California gnatcatcher and other sensitive biological species. In addition, the area to the south of the EEPP/BESS site on the SDG&E Palomar Energy Center/Substation property, which is planned to be utilized on a temporary basis during construction of the retaining wall along the southern EEPP property boundary, has the potential to support coastal California gnatcatcher and other sensitive biological species.

Literature review followed by reconnaissance level and protocol surveys to map trees and habitat, survey for nesting birds and raptors, and reconfirm the lack of protected species/habitat, and/or wetlands were performed for the Enterprise BESS Project site and study area in 2023 and early 2024 by Rincon biologists. The results of the surveys and an assessment of project impacts and mitigation recommendations for biological resources are presented in Appendix D.

Key findings from the Rincon biological resources assessment presented in Appendix D follow.

Vegetation

The following six vegetation communities occur within the Project Boundary area: urban/developed, disturbed, Disturbed Diegan Coastal Sage Scrub, non-native grassland, and ornamental.

Diegan Coastal Sage Scrub. This vegetation community comprises approximately 0.024 acre within the Project Boundary area, including a small patch along the proposed offsite access spur road and another small patch within the offsite temporary wall construction work area. Diegan Coastal Sage Scrub is a vegetation community featuring Diegan Coastal Sage Scrub species such as bush sunflower (*Encelia Californica*), California sagebrush (*Artemisia californica*), with coyote brush *(Baccharis pilularis*), deerweed, lemonade berry (*Rhus integrifolia*) and California buckwheat (*Eriogonum fasiculatum*). This community was found to be mixed with non-native grassland species, ornamentals, and other non-native annual and perennial weedy species such as saltcedar (*Tamarix),* thistles, and wild radish (*Raphanus Rihanistrum*).

Disturbed Diegan Coastal Sage Scrub. This vegetation community comprises approximately 0.08 acre within the Project Boundary area. This community is structurally similar to Diegan Coastal Sage Scrub, but has been subjected to historical anthropogenic disturbance from land use practices, most likely resulting from the initial construction of the EEPP and fence installation as well as construction activities on the adjacent SDG&E lands. Patches of Disturbed Diegan Coastal Sage Scrub are located on the top of slope near the southwestern Project Boundary area within

the EEPP site and as a corridor just outside the southern Project Boundary. In addition, patches of Disturbed Diegan Coastal Sage Scrub are located on the SDG&E land to the west of the EEPP site where the access road spur and stormwater pipeline easement are proposed.

Non-native (Annual) Grassland. This vegetation community comprises approximately 0.3 acre within the Project Boundary area, including small patches in all of the proposed onsite and offsite temporary and permanent Project disturbance areas. The non-native grassland typically occurs with clusters of Diegan Coastal Sage Scrub, Disturbed Diegan Coastal Sage Scrub, and Disturbed Habitat throughout.

Urban/Developed. This community comprises approximately 0.98 acre within the Project Boundary area. Areas considered urban/developed have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, roadways, and landscaped areas that often require irrigation.

Disturbed Habitat. This community comprises approximately 0.19 acre within the Project Boundary area. Areas mapped as disturbed habitat contain a cover of highly disturbed annual, non-native grasses. These areas have been physically disturbed by previous human activity and are no longer recognizable as a native or naturalized vegetation association.

Ornamental. This vegetation community comprises approximately 0.22 acre of ornamental vegetation within the Project Boundary area. Ornamental vegetation near the site perimeter includes numerous Canary Island pine trees (*pinus canariensis)*, paperbark trees (*Melaleuca quinquenervia*), as well as red tip photinias (*Photinia fraseri*), day lilies and other manicured ornamentals. Denser stands of pine trees provide a visual buffer around the north, northeastern, and northwestern boundaries of the EEPP site and were observed along the eastern and western portions of the SDG&E Palomar substation property to the south. Ornamental vegetation within the Project Boundary area is present within the EEPP/BESS site, the offsite stormwater pipeline easement, and the offsite temporary work areas for the retaining wall.

General Wildlife

The Project site and the open space area to the west and its surroundings provide habitat for wildlife species that commonly occur in urbanized and disturbed habitats within San Diego County. Wildlife species observed/detected on or adjacent to the site include Cooper's hawk (*Accipiter cooperii*;

California Department of Fish and Wildlife Watch List), red-tailed hawk (*Buteo jamaicensis*), California towhee (*Pipilo crissalis*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), song sparrow (*Melospiza melodia*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), house wren (*Troglodytes aedon*), black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos),* hooded oriole (*Icterus cucullatus*), and lesser goldfinch (*Spinus psaltria*). Several old small rodent burrows were observed, but no indication of any larger mammal burrows was present.

Special-status Biological Resources

Sensitive biological resources have the potential to occur within the Project Boundary and larger Study Area as described below. Local, state, and federal agencies regulate special status species and may require an assessment of their presence or potential presence to be conducted prior to the approval of proposed development on a property. Based on a query of the CDFW California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory in 2023, there are 111 special-status plant species and 74 special-status wildlife species documented within the *Escondido, California* USGS 7.5-minute quadrangle and the eight surrounding quadrangles, which covers a radius of over 10 miles. All 185 special-status species have been evaluated for potential to occur within the Project Study Area (see Attachment C in Appendix D for more information).

Special-status Wildlife Species

The database queries and literature review performed for the Project indicated 74 special status wildlife species have been documented within the Escondido USGS 7.5-minute quadrangle and eight surrounding quadrangles. The review of biological databases resulted in the identification of 34 special-status wildlife species occurring within five miles of the Study Area. Of these, Rincon determined that two species have at least a moderate potential to occur due to the presence of suitable habitat in the larger Study Area (Attachment C). Lawrence's goldfinch (*Spinus lawrencei*), a species tracked in the CNDDB, has a low potential to occur; however, surrounding oak trees within the Disturbed Diegan Coastal Sage Scrub community could provide foraging or potential nesting adjacent to the Project. One special status-status wildlife species, an adult male Cooper's hawk (*Accipter cooperii*), was observed within the Project Boundary area during the reconnaissance-level biological field surveys in 2023. Coastal California gnatcatcher has a potential to occur within the larger Study Area based on the habitat present, but no documented evidence has been recorded in the past or during protocol surveys conducted specifically for this Project.

Nesting Birds and Raptors. The Study Area contains suitable nesting habitat for a variety of native avian species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC) Section 3503. The Project Boundary area and larger Study Area contains marginal quality, but suitable habitat for special-status species such as Coastal California gnatcatcher (CAGN) and contains suitable stands of large coniferous trees that could be utilized by Cooper's hawks. Generally, most native bird species that could nest on or adjacent to the Project do not have a special-status designation, but are addressed herein based on the protections afforded under the MBTA and CFGC, and the potential for impacts to active nests during the nesting season. The nesting season generally extends from February through September, but can vary based upon annual climatic conditions. Species of birds common to the area that typically utilize open disturbed habitats for foraging, or scrub, oak trees or landscaped trees for nesting habitat, such as northern mockingbird, house wren, song sparrow, American crow, lesser goldfinch, mourning dove, Anna's hummingbird, California towhee, or red-tailed hawk were detected during the reconnaissance-level biological surveys in 2023.

Coastal California Gnatcatcher. Coastal California gnatcatcher, a federally threatened and SSC-covered species, is an obligate, permanent resident of Coastal Sage Scrub below 2,500 feet in southern California. This species occurs in low Coastal Sage Scrub in arid washes and on mesas and slopes. The Project Boundary area and larger Study Area support marginal suitable habitat for CAGN. Therefore, protocol surveys were recommended by CEC CoC BIO-7 in accordance with USFWS requirements to further evaluate if any CAGN were utilizing the site. Protocol surveys were conducted by Helix (Helix, 2001) prior to the original construction for the EEPP Project and survey results were negative. An updated series of presence/absence protocol breeding surveys were conducted within the breeding season and adhered to the frequency requirements outlined in the current USFWS survey protocol. Surveys were conducted from April 19, 2023 through May 24, 2023 to further evaluate any potential CAGN territories that could be affected by short-term Project construction activities, including vegetation clearance, and long-term habitat loss and indirect impacts. In accordance with the USFWS survey protocol, a minimum of six breeding season surveys were conducted at least one week apart prior to anticipated construction timeline for the Project. The results of the surveys were negative. Additional USFWS protocol non-breeding CAGN surveys (nine, at least 2 weeks apart) were conducted within the non-breeding season. Surveys began on October 17, 2023, and were completed on February 13, 2024 and the results were negative. The documentation of the protocol surveys is included in Appendix D.

Cooper's Hawk. Cooper's hawk is a California Department of Fish and Wildlife (CDFW) Watch List (WL) covered species that is typically found in woodland and forested habitats, and is found

throughout urban landscapes where cover and prey are available. They typically nest in riparian growths of deciduous trees, oaks, canyon bottoms, and pines. The Project Boundary area and larger Study Area contains songbird prey availability with adjacent tree and shrub habitat to the north, south, central, and west. An adult male Cooper's hawk individual was observed emerging from a Canary Island pine tree and perching and vocalizing along the southern fence line of the site. A pair was not observed during the reconnaissance-level biological surveys. There was no evidence of an active nest or behavior suggesting a nest was present within the larger Study Area; however, based on the suitable nesting and foraging habitat within the Project Boundary area and Study Area, this species has a high potential to occur as a transient or could potentially nest in the surrounding woodland or ornamental habitat.

Special-status Plant Species

No federal or state listed plants were observed during the reconnaissance-level biological field surveys. Refer to Appendix D for more information.

Sensitive Vegetation Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW maintains a list of plant communities that are considered sensitive. As discussed previously, three native vegetation types were documented to occur within the expected impact area for the proposed Project: Diegan Coastal Sage Scrub, Disturbed Diegan Coastal Sage Scrub, and Non-native (annual) Grassland. Refer to Appendix D for more information.

Critical Habitat

Federally Designated Critical Habitat (DCH) does not occur within the Project boundaries.

Aquatic Resources

Concrete stormwater v-ditches, approximately 3-feet wide exist within the Project site and within the Study Area, occurring along the fence line to the south, along the southwestern slope, and along the western portion of the fence line near the proposed underground stormwater pipeline. These features likely function to catch sheet flow rainfall and serve as erosional control, while transporting water off site. Stormwater appears to eventually flow into an old drainage basin adjacent to the

intersection of Citracado Parkway and Auto Park Way and disperse offsite. These concrete-lined features do not convey water except for local runoff during storms, and do not have any habitat value. The ditches are not jurisdictional waters of the United States, Waters of the State, or streambeds as defined by resource agency regulations. No such waters occur in the Project Boundary Area or larger Study Area.

Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. The areas surrounding the Project are developed, and the site is not situated in an area that would be conducive to use as a movement route for wildlife making local or regional movements.

5.4.2.2 Summary of Impacts

Potential impacts to biological resources that may occur from implementation of the Enterprise BESS Project are considered in the context of the required CoCs from the 2001 CEC license, and additional mitigation measures are recommended where needed. Construction-related activity and non-paved ground disturbance from the Project will involve grading, road construction, trenching, and installation and operation of battery energy storage facilities. Impacts will occur primarily in the southern portion of the Project Boundary area which includes Disturbed Diegan Coastal Sage Scrub, Diegan Coastal Sage Scrub, and Non-native grassland habitats. In addition, impacts will occur offsite on the adjacent SDG&E land to the west of the EEPP site associated with access spur road and stormwater conveyance pipeline construction. It is assumed that applicable CoCs developed for the original EEPP Project will be required conditions under the licensing of the BESS Project and will be implemented. The CoCs include conditions BIO-1 through BIO-11, as follows:

- **BIO-1:** The Project permitted under this emergency process will avoid all impacts to legally protected species and their habitat on site, adjacent to the site and along the right of way for linear facilities.
- **BIO-2:** The Project permitted under this emergency process will avoid all significant non-mitigatable impacts to designated critical habitat (wetlands, vernal pools, riparian habitat, preserves) on site or adjacent to the site.
- **BIO-3:** The Project permitted under this emergency process will avoid all impacts to locally designated sensitive species and protected areas.

- **BIO-4:** The Project permitted under this emergency process will reduce risk of large bird electrocution by electric transmission lines and any interconnection between structures, substations and transmission lines by using construction methods identified in 'Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996' (APLIC 1996).
- **BIO-5:** The Project biologist, a person knowledgeable of the local/regional biological resources, and Compliance Project Manager (CPM) will have access to the site and linear rights-of-way at any time prior to and during construction and have the authority to halt construction in an area necessary to protect a sensitive biological resource at any time.
- **BIO-6:** Upon decommissioning the site, the biological resource values will be reestablished at preconstruction levels or better.
- **BIO-7:** Prior to any site mobilization a FWS approved biologist will conduct protocol surveys of the project site and the construction laydown area for coastal California gnatcatchers.
- **BIO-8:** Prior to any Project-related activities that will occur during the raptor breeding season (March 15 – August 15), a qualified biologist will conduct surveys of the Project site and the surrounding habitat within a half-mile radius of the Project boundary. Survey methodologies will allow for a thorough search of these areas to identify potential arboreal and/or ground nesting raptor species.
- **BIO-9:** The Project biologist, prior to site mobilization, will fence off all sensitive natural resource areas including all DCSS habitat. The Project biologist will then be present onsite during construction until a date determined by the CPM. Finally, the Project biologist, along with the CPM will perform a site review for sensitive habitat impacts at the end of construction.
- **BIO-10:** Prior to any operational activities, the applicant will submit a report of any impacted habitat to the CPM for review. The applicant will then develop mitigation compensation plans using a 2:1 ratio for DCSS and a 0.5:1 ratio for NNG.
- **BIO-11:** At a time to be determined by the CPM, the applicant will develop a restoration plan for impacts resulting from grading and other activities within the construction laydown area.

With implementation of applicable existing CoCs and addition of a new recommended Condition (BIO-12, Worker Environmental Awareness Program for biological resources), impacts would be less than significant for the following biological resource considerations:

- Coastal California Gnatcatcher
- Other Special Status Wildlife Species
- Nesting Birds or Raptors
- Impacts to Sensitive Natural Communities
- Loss of Disturbed Diegan Coastal Sage Scrub and Non-Native Grassland

A summary of Project disturbance by habitat and/or land cover type, including expected mitigation requirements as per CEC CoC BIO-10 is presented in Appendix D.

It is expected that impacts associated with removal of Diegan Coastal Sage Scrub and Non-native Grassland will be mitigated via purchase of credits at a mitigation bank such as the City of Escondido's Daley Ranch Conservation Bank. It is expected that impacts associated with removal of trees will be mitigated via onsite replacement in accordance with a forthcoming landscape plan and/or via purchase of mitigation credits at an offsite bank such as the City of Escondido's Daley Ranch Conservation Bank. Refer to the biological resources assessment, including the arborist's report in Appendix D for more information.

5.4.3 Mitigation Measures

As discussed in Section 5.4.2.2 (above), in addition to the existing 11 biological resources Conditions of Certification stipulated in 2001 for the EEPP, an additional measure "BIO-12 – Worker Environmental Awareness Program (WEAP) is recommended to be added to protect sensitive biological resources. The proposed wording of the new Condition is as follows:

> *The applicant shall have a Worker Environmental Awareness Program (WEAP) for the construction crew that will be developed and implemented by a qualified biologist. Each employee (including temporary, contractors, and subcontractors) will receive the WEAP on the first day of working on the proposed Project. They will be advised of the potential impact to the listed species and the potential penalties for taking such species. At a minimum, the WEAP will include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of federal and State laws, reporting requirements, and Project features designed to reduce direct and indirect impacts to these species, including nesting birds, and promote continued successful occupation of the Project area environs.*

With implementation of recommended Condition BIO-12 in addition to existing CEC Conditions BIO-1 through BIO-11, as applicable, the Enterprise BESS Project will not result in significant impacts related to biological resources that will require additional mitigation measures. Refer to the biological resource assessment presented in Appendix D for more information.

5.4.4 Consistency with LORS

The Project conforms to applicable LORS related to biological resources.

5.4.5 Conditions of Certification

With the addition of recommended Condition BIO-12 (WEAP), no further changes to the CoCs for biological resources are necessary.

5.4.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.5 Soil and Water

5.5.1 CEC Certification of EEPP

The CEC Final Decision (CEC 2001a) determined that the construction and operation phases of the proposed EEPP project presented the potential for erosion and sedimentation through ground disturbance and runoff. The applicant (CalPeak) proposed detailed erosion prevention and sediment control measures including grading, compacting, and seeding/mulching exposed soils. Standard Conditions of Certification SOIL & WATER-2 and SOIL & WATER-6 ensured that necessary erosion and storm water plans were finalized. The Commission Decision determined that the conditions proposed in the Staff Assessment (CEC 2001b) provided appropriate mitigation measures for the soil and water issues.

The CEC Final Decision included Conditions for the EEPP, some of which are also applicable to the Enterprise BESS Project as discussed in Section 5.5.5.

5.5.2 Environmental Analyses

5.5.2.1 Water Usage and Supply

Short-term construction water needs for the Enterprise BESS Project are planned to be met via the existing City supply at the EEPP site. Water for dust control and other construction needs is estimated at up to 5,000 gallons per day for the first 2 to 3 months during site grading and leveling activities and to average 2,000 to 3,000 gallons per day for the balance of construction activities involving ground disturbance such as trenching and other dust generating activities. During the construction phase, portable chemical toilets supplied and maintained by the construction contractor would be utilized.

Routine operation of the unmanned Enterprise BESS facility is not expected to have any associated water needs. No potable water connection is needed associated with operation of the BESS facility. No sanitary sewage service would be required. During the operational phase, the BESS facility would use a portable chemical toilet at the adjacent EEPP facility, which would be emptied of waste as needed. Fire water is available via a fire water connection point at the adjacent peaker facility that is connected to the City water supply at the EEPP. The Enterprise BESS Project does not propose any onsite landscaping given the Project location and site space constraints. If needed, water can be obtained from the existing City water supply at the EEPP.

5.5.2.2 Soils

As discussed in the CEC Staff Assessment for the EEPP in 2001 (CEC 2001b), during project construction and operation, wind and water action can erode unprotected surfaces. Areas of impervious surfaces (paved, compacted, etc.) can create increased runoff conditions, thereby resulting in potential erosion on unprotected down-gradient surfaces. The CEC, as sole permitting authority, will approve all grading and erosion control plans through the Chief Building Officer and the Compliance Project Manager (CPM). An Erosion and Sediment Control plan will be developed by the Applicant and submitted to the CPM for approval prior to site mobilization (SOIL & WATER-2).

The Federal Emergency Management Agency (FEMA) has mapped the project area as being located outside the 100-year flood hazard zone and to be located in Zone X, Area of Minimal Flood Hazard (FEMA 2024). The grading and drainage plan for the Project will ensure that stormwater flows and runoff are properly controlled to prevent onsite and offsite flooding and/or concentrated, high-volume flows and accelerated erosion.

Construction of the peaker plant did not require an NPDES permit to address Storm Water Runoff from Construction Activities in accordance with CEC Condition SOIL & WATER-1 because the EEPP project disturbance was less that than the threshold of 5 acres at the time in 2001. The NPDES requirement is now 1 acre, and since the proposed Enterprise BESS Project disturbance footprint exceeds 1 acre, an NPDES permit will be required. Part of the NPDES permitting process includes the submission to the Regional Water Quality Control Board (RWQCB) of a Notice of Intent (NOI) application and the development of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP requirements include an erosion control and stormwater management plan that identifies best management practices (BMPs) to be implemented during construction activities. The City of San Diego reviewed construction plans as well as operations in order to ensure that stormwater discharges standards will be met.

As required, the Enterprise BESS project will comply with applicable NPDES/SWPPP requirements, including implementation of appropriate BMPs.

During project construction and operation, wind and water action can erode unprotected surfaces. Areas of impervious surfaces (paved, compacted, etc.) can create increased runoff conditions, thereby resulting in potential erosion on unprotected down-gradient surfaces. CalPeak identified the need to develop an Erosion Prevention and Sediment Control Plan (EPSCP) for the EEPP.

As required, the Enterprise BESS Project will prepare an EPSCP and will comply with applicable EPSCP requirements, including implementation of appropriate BMPs to control stormwater runoff flows and water quality. Construction activities will not result in adverse construction or operational phase related impacts to soil erosion and sedimentation to water resources.

In summary, no adverse impacts to soil and water resources associated with construction or operation of the Enterprise BESS Project are expected to occur.

5.5.3 Mitigation Measures

The Enterprise BESS Project will not create a significant impact on soil or water resources that will require additional mitigation measures.

5.5.4 Consistency with LORS

The Project conforms to applicable laws related to soil and water resources.

5.5.5 Conditions of Certification

The proposed Enterprise BESS Project will not require changes to the CEC standard CoCs for soil and water resources except as noted below. The soil and water resources related EEPP Conditions of Certification that are expected to be applicable to the Enterprise BESS project are as follows:

SOIL&WATER-1: *Prior to ground disturbance, the project owner shall obtain CPM approval of a Storm Water Pollution Prevention Plan (SWPPP) as required under the General Storm Water Construction Activity Permit for the project.*

The Enterprise BESS Project will comply with this Condition. This Condition did not apply to the EEPP, but based on reduction in the qualifying disturbance acreage from 5 acres in 2001 to 1 acre as of 2024, this measure is applicable to the Enterprise BESS Project.

SOIL&WATER-2: *Prior to ground disturbance, the project owner shall obtain CPM approval of an Erosion Prevention and Sedimentation Control Plan (EPCSCP). The plan will maintain natural drainage patterns to the extent possible, minimizing any potential impacts to the adjacent drainage.*

The Enterprise BESS Project will comply with this Condition.

SOIL&WATER-3: *Prior to site mobilization, the project owner shall submit to the CPM, a copy of a valid water service agreement for water supplies for the project from an authorized water purveyor, or a copy of a valid well permit for the project from the appropriate licensing agency.*

The Enterprise BESS Project will comply with this Condition, as applicable. If the Project does not require an operational water supply, it is assumed that this Condition would not apply. It is currently expected that limited water needs will be met by tapping the existing municipal supply at the EEPP.

SOIL&WATER-5: *Prior to construction, the project owner shall submit to the CPM, a copy of the completed geotechnical report.*

The Enterprise BESS Project will comply with this Condition.

SOIL & WATER-6: *The Applicant will develop Storm Water Pollution Prevention Plans for construction and industrial activities, including all applicable BMP's.*

Enterprise BESS will submit SWPPPs, as applicable, to the CPM for approval prior to any qualifying construction and industrial activities, respectively.

5.5.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

FEMA. 2024. National Flood Hazard Layer FIRMette (2012). Website accessed February 15, 2024. Panel 06073C1076G.

5.6 Hazardous Materials Management

5.6.1 CEC Certification of EEPP

The CEC Final Decision (CEC 2001a) included a summary of hazardous material management related issues associated with the EEPP. The assessment of the proposed EEPP project included the consideration of the use of aqueous ammonia (19.5%) and natural gas. The CEC Staff Assessment (CEC 2001b) noted that there were light industrial/commercial properties located adjacent to the proposed EEPP facility. It was CEC Staff's belief that the probability of serious impacts associated with an accidental release was insignificant at these adjacent properties. Staff recommended that all standard conditions regarding hazardous materials handling be imposed for the EEPP project. Staff also concluded that the use of aqueous ammonia would preclude any potential for significant impact at the nearest residences which were identified as being more than about 1200 feet from the then proposed EEPP project.

The proposed Enterprise BESS Project will not involve the use of aqueous ammonia or natural gas at the EEPP. The proposed Enterprise BESS Project will use lithium ion or similar batteries. Lithium ion batteries are subject to the U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180). This includes packaging and standard hazard communication requirements (e.g., markings, labels, shipping papers, emergency response information) and hazmat employee training requirements related to transportation.

5.6.2 Environmental Analyses

The Enterprise BESS Project will not result in the use of hazardous materials used in excess of permitted quantities. In addition, the Enterprise BESS Project will not result in an increase of waste generation at the site. Batteries may be replaced during augmentation events in the operational phase due to battery degradation. Spent batteries would be handled as Universal Waste and recycled and/or disposed of offsite in an approved manner. Therefore, no impacts from hazardous materials handling or waste management are expected.

5.6.3 Mitigation Measures

The Enterprise BESS Project will not create a significant impact from hazardous materials handling that will require additional mitigation measures.

5.6.4 Consistency with LORS

The project conforms to applicable laws related to hazardous materials handling.

5.6.5 Conditions of Certification

The proposed Enterprise BESS Project does not require changes to the EEPP CoCs for hazardous materials handling as listed below. The Enterprise BESS Project will comply with CoCs HAZ-1 and HAZ-2 as follows:

HAZ-1: *The project owner shall not use any hazardous material in reportable quantities except those identified by type and quantity in the Application for Certification unless approved by the CPM.*

Verification: *The project owner shall provide in the Annual Compliance Report a list of hazardous materials used at the facility in reportable quantities.*

The Enterprise BESS Project will comply with this Condition, as applicable.

HAZ-2: *The project owner shall submit both the Business Plan and Risk Management Plan to the CPM for review and comment, and shall also submit these plans and/or procedures to the County Fire Department for approval.*

Verification: *30 days (or a CPM-approved alternative timeframe) prior to the initial delivery of any hazardous materials in reportable quantities to the facility, the project owner shall submit the Business and Risk Management Plan to the CPM for review and comment. At the same time, the project owner shall submit these plans to the County Fire Department for approval. The project owner shall also submit evidence to the CPM that the County Fire Department approved of these plans, when available.*

The Enterprise BESS Project will comply with these Conditions, as applicable.

5.6.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.7 Cultural Resources

5.7.1 CEC Certification of EEPP

As reported in the CEC Staff Report (CEC 2001b), the EEPP project site, laydown area, and 200-foot transmission line were subject to an archaeological pedestrian survey carried out in March 2001. Results of this survey yielded one isolate Mano which was determined to be out of context and, therefore, not of great archaeological significance. An additional archaeological survey was conducted on May 14, 2001 during a site visit conducted by CEC cultural resource staff. No other cultural remains were observed during this survey.

A literature review and record search documenting all cultural resources within a one-mile radius of the EEPP project site was conducted in 2001. The one-mile radius was sufficient to include the project site, transmission line, laydown area, and natural gas line. Information was obtained from the South Coast Information Center and the San Diego Museum of Man. Results yielded the presence of two historic structures and nine pre-historic deposits. Despite the close proximity of these resources, they were determined to be outside of the project Area of Potential Effect (APE); consequently, the EEPP project was determined by the CEC to not result in any adverse effects to cultural resources.

Due to the lack of any significant cultural resources within the project APE, it was the assessment of the CEC staff that no cultural resources would be adversely affected by any construction approved for the peaker project. For that reason, the CEC determined that standard condition for certification **CUL-1** would apply to any construction associated with the EEPP project.

5.7.2 Environmental Analyses

The Applicant arranged for a current cultural resources investigation to be performed for the Enterprise BESS Project. The 2023 analysis performed by Rincon Consultants followed Title 20, CCR, Appendix B guidelines, and includes a general description of the proposed site and related facilities, maps of the proposed Project area and related facilities, cultural resources records search, archival research, Sacred Lands File (SLF) search, field survey, desktop historical built environment analysis, and recommendations. The Cultural Resources Technical Report (Appendix E) contains sensitive and confidential information concerning archaeological resources which has been removed in the version for public distribution. Archaeological site locations are exempt from the California Public Records Act, as specified in Government Code 7927.005, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). Sections of the report contain locational maps and other sensitive information. Distribution should be restricted appropriately. A copy of the complete Confidential Cultural Resources Technical Report has been provided to the CEC.

The cultural resources records search performed by Rincon in 2023 for the Enterprise BESS Project identified 56 previously recorded cultural resources within the 1-mile records search radius. None of the cultural resources were located within or adjacent to the Project area. A review of historical aerial photographs and assessor data indicates that a majority of the proposed Project area has been subject to ground disturbances including land clearing, plowing, and tilling, as well as development of adjacent land and construction of roads since the 1950s. Soils in the Project area have been previously disturbed as a result of previous grading activities associated with the construction of the existing EEPP facility, as well as from the construction of the adjacent commercial and industrial buildings, access roads, and electrical utility facilities and rights-of way. The pedestrian survey conducted by Rincon in 2023 for the Project identified no cultural resources within the Project area. Due to the disturbed nature of the Project area and the non-alluvial soils, there is a low risk of encountering subsurface archaeological deposits.

Condition of Certification (CUL-1) for the original certification is considered sufficient for the proposed amendment as well. The applicant has committed to compliance with the requirements of CEC Condition CUL-1, as follows:

CUL-1*: The Project certified under this emergency process shall not cause any significant impact to any cultural resources. No on-site cultural resource monitoring is required for this Project. In the event of an inadvertent cultural discovery the following mitigation measure must be followed: All work within 100 feet of the suspected cultural material must halt and a qualified Cultural Resource Specialist will be contacted immediately to evaluate the significance of the find. The Project Manager, Construction Manager, and the Compliance Project Manager will be notified if the resource is judged to be potentially significant, and the archaeologist may recommend further study.*

In the event that suspected human remains are encountered, work must stop immediately within a radius of 100 feet (30 meters) of the discovery, and the San Diego County Coroner's Office will be notified within 24 hours of the find. If the skeletal remains are determined to be prehistoric, the Coroner's Office will contact the Native American Heritage Commission (NAHC) to identify the Most Likely Descendants (MLD). The MLD will be notified and will determine the most appropriate disposition of the remains and any associated artifacts.

5.7.3 Mitigation Measures

The Enterprise BESS Project will not create a significant impact to cultural resources that will require additional mitigation measures.

5.7.4 Consistency with LORS

The Enterprise BESS Project conforms to applicable LORS related to cultural resources.

5.7.5 Conditions of Certification

No changes to the original CEC Condition (CoC CUL-1) are required to protect potentially present sensitive cultural resources.

5.7.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.8 Paleontological Resources

5.8.1 CEC Certification of EEPP

The CEC Final Decision (CEC 2001a,b) included a summary assessment of paleontological resource related issues associated with the EEPP. A summary of pertinent information from the Commission Decision in 2001 follows. The 2.94-acre EEPP project site is located in an area defined by rolling hills (9-15 percent grade), underlain by granitic rocks. The EEPP project would result in heavy disturbance to the soil mantle on the project site. The site pad had been previously cut down to a maximum of approximately 20 feet. The applicant proposed the installation of reinforced mat foundations for equipment, which were to be 1-4 feet deep. The proposal also included the installation of an 11.5 foot deep control room basement. The EEPP transmission line and laydown areas, however, were not expected to greatly impact the soil mantle.

The CEC Final Decision noted that no paleontological field survey had been conducted for the APE associated with the EEPP project. In 2001, CEC staff conducted an independent review of geologic mapping available for the neighborhood of the site. Of the available published geologic maps, neither the map of Merriam (1954), nor the map of Kennedy and Peterson (1975), covered the area of the site. A third geologic map (ERC 1989), published in the Draft General Plan of the City of Escondido, was submitted for review by the Applicant. This map showed that the site would be developed at a place where granitic rocks, which have null paleontological potential, are in contact with Jurassic or Triassic marine sedimentary or metasedimentary rocks in which fossils are rare, but potentially significant. CEC staff also inspected the aerial photograph of the proposed project site provided by the Applicant. This photograph showed that the site is at the base of a graded cut slope, on either a cut pad (in which case the soil mantle has been removed) or an artificial-fill pad (in which case the underlying soils have null paleontological potential). On May 14, 2001 CEC staff performed a site visit, and upon inspection, concluded that the pad was most likely underlain by artificial fill.

Based on the geology of the area, and on the aerial photograph inspected, CEC staff concluded in 2001 that the EEPP project was not likely to impact paleontological resources. The CEC concluded that compliance with standard Condition of Certification PALEO-1 would ensure that no paleontological resources would be adversely impacted from construction of the EEPP project.

5.8.2 Environmental Analyses

The proposed Enterprise BESS facilities are located primarily on the southern and southwestern portions of the EEPP property and on adjacent lands on an SDG&E parcel in areas that have been previously disturbed from historical agricultural operations and during construction and operation of the current EEPP and offsite electrical utility related facilities on the adjacent SDG&E parcels. Construction of the proposed Enterprise BESS Project will require grading and excavation for site levelling, drainage control, and foundations on the BESS site and switchyard areas. In addition, excavation will be required for installation of the underground 13.8 kV gen-tie connection on the western portion of the EEPP site and construction of offsite stormwater conveyance facilities on SDG&E land adjacent to the western EEPP site boundary. The maximum cut depth is estimated at approximately 30 feet in the southern portion of the EEPP/BESS site associated with removal of the existing hillside which is expected to be underlain by granitic rock pending the results of a site-specific geotechnical report. The installation of underground utilities are expected to require excavations as deep as approximately 10 feet for the offsite stormwater conveyance on the SDG&E land and approximately 6 feet for the onsite 13.8 kV gen-tie connection from the BESS to the EEPP switchyard area.

The Enterprise BESS Project construction location and subsurface disturbance depths are similar to the EEPP project. Based on the geology of the area, CEC staff concluded in 2001 that the EEPP project was not likely to impact paleontological resources. Similarly, with implementation of CEC standard Condition of Certification PALEO-1, it is expected that no paleontological resources would be adversely impacted from construction of the EEPP project.

In summary, no adverse impacts to paleontological resources associated with construction or operation of the Enterprise BESS Project are expected to occur.

5.8.3 Mitigation Measures

The Enterprise BESS Project will not result in significant impacts related to paleontological resources that will require additional mitigation measures.

5.8.4 Consistency with LORS

The project conforms to applicable LORS related to geological and paleontological resources.

5.8.5 Conditions of Certification

The proposed modifications do not require changes to the following CoC for paleontological resources as stipulated in the CEC Final Decision for the EEPP and that are applicable to the Enterprise BESS Project as well:

PALEO-1: *The project certified under this emergency process shall not cause any significant impact to paleontological resources on the power plant site or linear rights of way.*

Verification*: Throughout construction, the project owner shall inform the CPM concerning any substantive activity related to item 1.*

In summary, the Enterprise BESS Project will not result in significant impacts related to paleontological resources that will require additional CoCs.

5.8.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

ERC (Environmental and Energy Services Co.), 1989, Geologic map of the City of Escondido: Draft Environmental Impact Report of the Draft General Plan of the City of Escondido. Figure II-9 of the Draft EIR – scale 1:63,000.

Kennedy, M.P., Peterson, G.L., 1975, Geology of the San Diego metropolitan area, California: California Division of Mines and Geology, Bulletin 200. Includes geologic maps of the Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW 1/4 Escondido 7.5' quadrangles - scale 1:24,000.

Merriam, R., 1954, A typical portion of the Southern California batholith, San Diego County: in Jahns, R. (ed.), Geology of Southern California: California Division of Mines, Bulletin 170, vol. 2, Map Sheet 22 – Scale 1:63,360.

5.9 Noise and Vibration

5.9.1 CEC Certification of EEPP

The CEC Final Decision (CEC 2001a,b) included a summary assessment of noise impact related issues associated with the EEPP. Concerns listed were related to construction and operational noise impacts at the property line and nearest sensitive receptors consisting of residential uses approximately 1200 feet to the northwest of the facility on Ross Drive at the time of the assessment in 2001. As stated in the CEC Staff Assessment (CEC 2001b), the City ordinance limits noise levels over a 24-hour period to 45 decibels (dB) at residential properties. The Ross Drive residential area is in an unincorporated area of San Diego County, therefore, is subject to County Noise Ordinances. In 2001, the County noise standard at a residential property line was 45 dB. The proposed EEPP project was estimated to generate a maximum noise level of 70 dB at the project property lines. In 2001, this noise level was consistent with the City and County 70 dB standard at the industrial facility property line. Adjacent undeveloped land and developed industrial facilities would be subject to construction noise. The CEC Final Decision stated that these uses would not be affected by the EEPP construction noise because they are not noise sensitive. Furthermore, the noise would be temporary, and would only occur during the day.

Energy Commission staff concluded that the standard Noise Conditions of Certification would adequately address potential noise impacts and concerns and that no additional Conditions of Certification were required for the EEPP.

5.9.2 Environmental Analyses

The proposed Enterprise BESS Project will result in temporary noise impacts during the construction phase as well as a minor increase in noise levels at the Project site during the operational phase associated with BESS electrical equipment operation and maintenance activities. In order to assess potential Enterprise BESS Project noise impacts, a combination of short-term and long-term ambient noise monitoring was conducted at the site and the closest residential area on June 1-2, 2023. The ambient noise monitoring data was used for modeling Project construction and operational noise levels and comparing the results to applicable noise and vibration impact significance thresholds. The assessment is documented in the Noise and Vibration Study presented in Appendix F.

In summary, construction and operation of the Enterprise BESS Project will not result in any significant noise or vibration impacts as summarized below in Table 5.9-1. Refer to the Noise and Vibration Study presented in Appendix F for more information.

Table 5.9-1 Summary of Noise and Vibration Impact Findings

Issue	Proposed Project's Level of Significance	Applicable Recommendations
Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant impact (Construction) Less than significant impact (Operation)	None
Would the project result in the exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	Less than significant impact (Construction) Less than significant impact (Operation)	None
For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No impact	None

5.9.3 Mitigation Measures

The Enterprise BESS Project will not create significant noise and vibration impacts that will require additional mitigation measures.

5.9.4 Consistency with LORS

The project conforms to applicable laws related to noise and vibration.

5.9.5 Conditions of Certification

The proposed Enterprise BESS Project does not require changes to the CoCs for noise and vibration. An assessment of the applicability of the existing EEPP Noise CoCs for the Enterprise BESS Project follow.

NOISE-1: *The project permitted under this emergency process shall be required to comply with applicable community noise standards.*

Verification: *Within 30 days of the project first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a*

minimum. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. Steam relief valves shall be adequately muffled to preclude noise that draws legitimate complaints. If the results from the survey indicate that the project noise levels at the closest sensitive receptor are in excess of 62.5 dBA from 7:00 a.m. to 7:00 p.m., 60 dB from 7:00 p.m. to 10:00 p.m., and 57.5 dB from 10:00 p.m. to 7:00 a.m., or above 75 dBA at the project site property lines additional mitigation measures shall be implemented to reduce noise to a level of compliance with this limit.

The Project will comply with applicable community noise standards. No loud noise sources are associated with the operation of the Enterprise BESS Project. Once the Project is operational, the Applicant will conduct a 25-hour community noise survey as required by CoC NOISE-1.

***NOISE-2**: Prior to the start of rough grading, the project owner shall notify all residents within one mile of the site of the start of construction and will provide a complaint resolution process.*

The Project will comply with CoC NOISE-2.

***NOISE-3**: Throughout the construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project related noise complaints.*

The Project will comply with CoC NOISE-3.

***NOISE-4:** Night construction activities may be authorized by the CPM if they are consistent with local noise ordinances. Night construction, or specific night construction activities may be disallowed by the CPM if it results in significant impact to the surrounding community.*

The Project will comply with CoC NOISE-4, as applicable. No night construction activities are currently planned as part of the proposed Enterprise BESS Project.

In summary, the Enterprise BESS Project will not result in significant impacts related to noise or vibration that will require additional CoCs.

5.9.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.10 Land Use

5.10.1 CEC Certification of EEPP

This Petition to Amend provides updates to the land use information as described in the Commission Decision and subsequent Commission Orders.

At the time the EEPP was licensed by the CEC in 2001, CalPeak's 2.95-acre site was vacant (CEC 2001a). The EEPP project site had been graded, but was otherwise unimproved. The EEPP project site is within the western portion of Escondido and was designated General Industrial (P/1) by the General Plan, with a Zoning designation of Light Industrial (M-1). As discussed in the CEC Final Decision, the peaker project was determined consistent with the General Plan Land Use Designation (P/1) and Zoning designation (M-1) for the site. As of 2001, the properties east and north of the EEPP site consisted of commercial/light industrial operations, beyond which additional commercial/light industrial operations were located along Vineyard Avenue. This description is still accurate, with the exception that Vineyard Avenue has been renamed Auto Park Way by the City. As of 2001, the southern site boundary abutted a large area of vacant land and abandoned orchards. As in 2001, the western site boundary currently still abuts open land, upon which is located a 200-foot-wide SDG&E transmission line easement, running north and south, with elevated transmission lines. Beyond the easement is more open land. The CEC Final Decision determined that the EEPP project would be consistent with the surrounding existing land uses, as the area was devoted to industrial and commercial purposes. Since the EEPP was licensed in 2001, Citracado Parkway and the Palomar Medical Center have been built to the west. In addition, the vacant land that was located south of the EEPP site in 2001 is now occupied by the SDG&E Palomar Energy Center and Substation.

At the time of CEC licensing in 2001, the City of Escondido recommended that several requirements pertaining to land use and general construction requirements be incorporated in the Commission Decision. The CEC Staff Assessment (CEC 2001b) noted that the Energy Commission has authority for permitting and monitoring construction and operation of power

plants and related facilities. Proper implementation and monitoring of all conditions of approval is the responsibility of the assigned Energy Commission compliance project manager, who makes every effort to coordinate with local jurisdictions regarding construction and operation of power plants. The Staff Assessment notes that Standard Condition of Certification LAND-1 would ensure that the EEPP project will be in compliance with all applicable laws, ordinances, regulations, and standards (LORS). As discussed in the CEC Final Decision, other Conditions of Certification were tailored to address specific concerns raised by the City of Escondido. Conditions GEN-1 and GEN-2 require compliance with the California Building Code and submission of designs, calculations and specifications. Condition LAND-2 requires plan approval for driveways, and Condition TRANS-5 relates to paving requirements. Condition PUB SER-2 addresses fire hydrants and fire equipment access. Painting and lighting requirements are covered in Conditions VIS-1 and VIS-2. The concerns raised by the City of Escondido and several residents relating to shielding the EEPP project by use of berms, vegetation, trees and fencing is addressed in Condition VIS-3. Modifications to the original landscaping plan were made to meet these concerns.

5.10.2 Environmental Analyses

The proposed Enterprise BESS Project site is located on the existing EEPP facility property in the City of Escondido. Local land use laws, ordinances, regulations, and standards (LORS) that are potentially applicable to the proposed project are contained in City of Escondido's 2012 General Plan (as amended) (City of Escondido 2012), and the City's Municipal Code, Chapter 33 Zoning, Article 55 Grading and Erosion Control.

CEC Condition LAND-1 required that the EEPP project permitted by the Energy Commission would conform to all applicable local, state and federal land use requirements, including general plan policies, zoning regulations, local development standards, easement requirements, encroachment permits, truck and vehicle circulation plan requirements, Federal Aviation Administration approval, and the Federal Emergency Management Agency National Flood Insurance Program. Verification requirements for Condition LAND-1 state that prior to start of construction, the project owner will submit to the CPM documentation verifying compliance with the referenced land use requirements. It is assumed that CEC Condition LAND-1 will also be applicable to the Enterprise BESS Project.

As discussed in Section 5.4 and Appendix D (Biological Resources), the proposed Enterprise BESS Project includes the removal of some vegetation and landscaping trees associated with project development on the southern and southwestern portions of the Project Boundary. As currently proposed, the proposed impacts to vegetation do not include removal of the perimeter

vegetation (trees) that was stipulated by the CEC to screen the peaker facilities from offsite viewing locations and to meet City of Escondido landscape plan requirements. However, the Project will require removal of vegetation that was previously protected from development by the peaker project on the southern hillside area. In addition, several ornamental trees and patches of sensitive vegetation will need to be removed associated with Project development. Mitigation for the removed vegetation on the EEPP site and the adjacent SDG&E lands is discussed in Section 5.4 and Appendix D. The removal of the trees and vegetation would typically require permits from the City of Escondido were the CEC not the Lead Agency. The CEC's approval of the EEPP project generally required compliance with local LORS subject to the CEC's discretion. Mitigation strategies will consider City of Escondido Industrial Development Standards and site zoning of M-1 (see Escondido Municipal Code, Chapter 33 Zoning, Article 26 – Industrial Zones, Section 33-569 – Development Standards, Table 33-569, Industrial Development Standards).

The City of Escondido Municipal Code contains information regarding requirements for removing vegetation (trees and shrubs). The applicable City of Escondido Municipal Code, Article 55, Grading and Erosion Control sections include the following:

- Sec.33-1068.A. Clearing of land and vegetation protection
- Sec.33-1068.B. Restrictions on removal of vegetation
- Sec.33-1069. Vegetation protection and replacement standards

CEC Condition LAND-1 would ensure that all applicable laws, ordinances, regulations and standards (LORS) would be met and that the project's impact on land use would be less than significant.

In summary, no adverse impacts related to land use compliance and consistency associated with construction or operation of the Enterprise BESS Project would occur.

5.10.3 Mitigation Measures

The Enterprise BESS project will not result in significant impacts related to land use that will require additional mitigation measures.

5.10.4 Consistency with LORS

The Project conforms to applicable LORS related to land use.

5.10.5 Conditions of Certification

The proposed modifications do not require changes to the following CoCs for land use:

LAND–1: *The project permitted under this emergency process will conform to all applicable local, state and federal land use requirements, including general plan policies, zoning regulations, local development standards, easement requirements, encroachment permits, truck and vehicle circulation plan requirements, Federal Aviation Administration approval, and the Federal Emergency Management Agency National Flood Insurance Program.*

Verification*: Prior to start of construction, the project owner will submit to the CPM documentation verifying compliance with the above referenced land use requirements.*

LAND-2: *Detailed plans for all driveways shall be submitted to the City of Escondido Public Works Department for review and comment and to the CPM for review and approval prior to construction of the entryway.*

Verification*: The CPM shall review the entryway plans to ensure that City concerns have been addressed and shall inspect the constructed driveways to ensure that they are constructed to City driveway standards.*

The Enterprise BESS Project will comply with Conditions LAND-1 and LAND-2 as applicable.

5.10.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6., 2001

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

City of Escondido, 2012. City of Escondido 2012 General Plan. As amended.

5.11 Traffic and Transportation

5.11.1 CEC Certification of EEPP

The CEC Staff Assessment (CEC 2001b) included a summary assessment of traffic and transportation related issues associated with the EEPP. The EEPP project site is accessed from State Route 78 (SR 78) to southbound Nordahl Road, then east on Auto Park Way (previously Vineyard Avenue), and south on Enterprise Street. The CEC Staff Assessment noted that the applicant proposed to avoid peak-hour traffic on Auto Park Way by using Mission Street as an alternative during the peak-hour. The EEPP project was expected to generate a maximum of 154 trips per day, including construction workers, materials, and equipment delivery during construction. During operation, the EEPP project is unmanned, with operational traffic generated on an intermittent basis for routine maintenance. The EEPP operational traffic was not expected to be substantial and would not exceed the maximum construction trip generation of 154 trips per day on an intermittent basis for periodic maintenance. The CEC Staff Assessment also presented information related to the traffic volumes and capacities on area roadways that would be expected to provide access for the EEPP. According to the 2001 CEC Staff Assessment, the data indicated that there was sufficient capacity for both construction and operation traffic on all roadways that would be used to access the EEPP site.

The CEC Staff Assessment noted that there are regulations relating to the size and weight of vehicles using state and city roadways. These regulations are in place to protect public safety and to minimize damage to area roads from large, heavy loads. Compliance with CEC Condition TRANS-1 ensured that the project complies with the weight and size requirements of relevant jurisdictions.

Transportation of hazardous materials to the site including aqueous ammonia was assessed to be in compliance with California Highway Patrol and Caltrans requirements. TRANS-3 required the applicant to obtain the necessary permits and licenses for transportation of these hazardous materials.

The City of Escondido recommended that the following requirement be incorporated into the Commission Decision: “All private driveways and parking areas shall be paved with a minimum of 3” (Asphaltic Concrete) AC over 6” of Aggregate Base (AB) or 5 1/2” Portland Cement Concrete (PCC) over 6” AB. All paved areas exceeding 15 percent slope or less than 1.0 percent shall be paved with PCC.” Energy Commission staff took note of this comment and concluded that this condition should be added as Condition of Certification TRANS-5 for the EEPP.

As discussed in Section 5.11.2, below, the construction traffic associated with the Enterprise BESS Project would be less than that required for the EEPP when it was constructed.

5.11.2 Environmental Analyses

The proposed Enterprise BESS project as currently envisioned would involve a peak construction workforce of 50 workers and involve up to about 30 truck deliveries per day. The facility would be unmanned during normal operations and truck traffic during operations would be limited primarily to maintenance activities. It is expected that the Enterprise BESS Project would comply with applicable Caltrans and California Vehicle Code requirements.

As was the case for the EEPP, with implementation of the CEC CoCs for traffic and transportation, it is expected that the peaker project's impact on traffic and transportation would be less than significant.

5.11.2.1 Vehicle Miles Traveled Assessment Findings

This Petition for Post Certification Amendment for the Enterprise BESS Project includes a Vehicle Miles Traveled (VMT) assessment. This assessment was not required at the time the EEPP was licensed in 2001. The VMT assessment is presented in Appendix G and the findings are summarized below.

The discussion of VMT screening thresholds presented herein is consistent with City of Escondido requirements, although the City of Escondido does not have lead agency jurisdiction for the project given the CEC's jurisdiction.

Construction of the project is expected to have a peak daily workforce of up to 50 daily construction workers. In addition, construction of the project is expected to generate a peak of 30 truck trips per day to facilitate incoming deliveries and offsite disposal of excavated soil and rock material and construction waste. Overall, the project is expected to generate a maximum of 80 round trips per day during the construction phase. The estimated number of construction-phase trips is based on the planned work activities, construction schedule, and applicant experience on similar projects. After construction is complete, the project would function as an unmanned facility that is controlled remotely from an off-site location. No daily operational trips would typically be generated by the project. However, required maintenance of the BESS Project would be expected to require two maintenance workers to visit the site one day per week on

average, resulting in approximately two round trips per week during the operational lifespan of the project.

The Enterprise BESS Project can be categorized as a public utility with passive use. With consideration of the low operational phase workforce, the Enterprise BESS Project qualifies for a streamlined transportation analysis without being subject to the detailed transportation VMT analysis requirements under the City of Escondido's "Locally Serving Public Facility" screening criteria.

In conclusion, the Enterprise BESS project would screen out of the requirement to prepare a detailed transportation VMT analysis based under the City of Escondido's "Locally Serving Public Facility" screening criteria, as identified in the as identified in the City of Escondido's "Escondido Transportation Impact Analysis Guidelines" (2021). Therefore, it can be presumed that the project would have a less than significant VMT impact.

5.11.3 Mitigation Measures

The Enterprise BESS Project will not result in a significant impact related to traffic and transportation and will not require additional mitigation measures.

5.11.4 Consistency with LORS

The project conforms to applicable laws related to traffic and transportation.

5.11.5 Conditions of Certification

The proposed Enterprise BESS Project does not require additions to the CoCs for traffic and transportation. An assessment of the applicability of the existing EEPP Traffic and Transportation CoCs for the Enterprise BESS Project follows.

TRANS-1: *The project permitted under this emergency process shall comply with Caltrans and City/County limitations on vehicle sizes and weights. In addition, the project owner or its contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.*

The Project will comply with CoC TRANS-1.

TRANS-2: *The project permitted under this emergency process shall comply with Caltrans and City/County limitation for encroachment into public rights-of- way and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.*

The Project will comply with CoC TRANS-2.

TRANS-3: *The project permitted under this emergency process shall ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of hazardous materials.*

The Project will comply with CoC TRANS-3.

TRANS-4: *Following completion of construction of the power plant and all related linear facilities, the project owner shall return all roadways to original or as near original condition as possible.*

The Project will comply with CoC TRANS-4 as related specifically to the Enterprise BESS Project.

TRANS-5: *Driveways and parking areas shall be paved with a minimum of 3" AC over 6" of AB or 5 1/2" PCC over 6" AB. All paved areas exceeding 15% slope or less than 1.0% shall be paved with PCC.*

The Project will comply with CoC TRANS-5 as related specifically to the Enterprise BESS Project.

5.11.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

Escondido, City of. 2021. Escondido: Transportation Impact Analysis Guidelines. https://www.escondido.org/Data/Sites/1/media/Engineering/TIACRAIG/EscondidoTransportationImpactAnalysisGuidelines2021.pdf (accessed May 2023).

State Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

5.12 Visual Resources

5.12.1 CEC Certification of EEPP

The CEC Staff Assessment (CEC 2001b) included a summary assessment of visual resources related issues associated with the EEPP. Pertinent information from the 2001 Staff Assessment for the EEPP is presented here as it relates to the proposed Enterprise BESS Project.

As assessed in 2001, the project area contained rolling hills that were vegetated with grasses, shrubs and occasional landscape trees. The project site had been graded and was relatively flat, except for manufactured slopes at the north and south end of the site. A small hill was located south of the project site and the area terrain sloped downward towards the north and east, and gently upward towards the west.

As of 2001, development of industrial facilities had occurred to the north and east of the project site. On the western project boundary, there was an SDG&E electrical transmission corridor with two rows of steel lattice transmission lines and two rows of wooden distribution lines. In general, the industrial uses in this area were characterized as having a neat well-kept appearance.

The 2001 CEC Staff Assessment noted that the proposed EEPP project would introduce an industrial structure onto the site with heights ranging from 30-feet to 50-feet tall. This includes an exhaust stack that is 50-feet tall and a "dead end" tower that is approximately 47-feet tall. A landscaped 10-foot high earthen berm was proposed on the western boundary, and along the top of the existing manufactured slope on the north end of the project site. In addition, the manufactured slope on the south side of the entrance would be landscaped with tree screening for approximately 200 feet, beginning at the entryway. Approximately 80 feet of landscaping was proposed on the north side of the driveway, beginning at the entrance. The manufactured slope on the south side of the site would not be landscaped, except for the entryway landscaping described above. The proposed landscape plan included screening of all outdoor storage areas and an irrigation system to maintain landscaping. The application stated that all landscaping would be maintained in a weed and debris free condition. The application also stated that the project would comply with City landscaping requirements.

As of 2001, the site could be viewed from the houses in the long range across the valley to the north from approximately three miles and from Auto Park Way (previously Vineyard Avenue) near the site. Auto Park Way views were estimated to be 30 feet lower than the EEPP project site. These northern views of the site included views of the northern and northwestern portions of the site. A hill and ridge protrude from the south toward the north along the western edge of the transmission right-

of-way adjacent to the site. The ridge ranges from an estimated 30 feet higher than the site at the southern part of the site to an estimated 15 feet approximately three quarters (3/4) of the distance up the western project property line. This ridge blocks any existing views of the site to the west and much of the views of the western portion of the site from Auto Park Way to the northwest. Highway 78 travelers have limited intermittent views of the site in the distance, due to partial screening by structures and vegetation. There are no existing views from the south of the site, as that area is an undeveloped hilltop that obscures any views from the south. There are extremely limited views of the site from the east because existing topography and landscaping obscure any views from that direction.

The 2001 CEC Staff Assessment determined that the berm and landscaping proposed by the applicant as part of the EEPP project on the western and northern project boundaries would be sufficient to ensure that views of the site from the north and west were screened from currently available views as of 2001. In addition, the CEC Staff Assessment noted that Condition **VIS-1** required all portions of the structure visible to the public to be painted in a neutral color in order to reduce the visual impacts of any visible portions of the project. Any lighting proposed by the applicant could increase nighttime glare but **VIS-2** would address this problem. An adjacent property developer and the City of Escondido requested that the EEPP project should provide screening to reduce the impact of views from the proposed industrial park to the west and north. This screening would consist of a 10-foot-high berm and landscaping including trees on the entire western and northern project boundaries. The applicant agreed to include the berm and provide a detailed landscape plan.

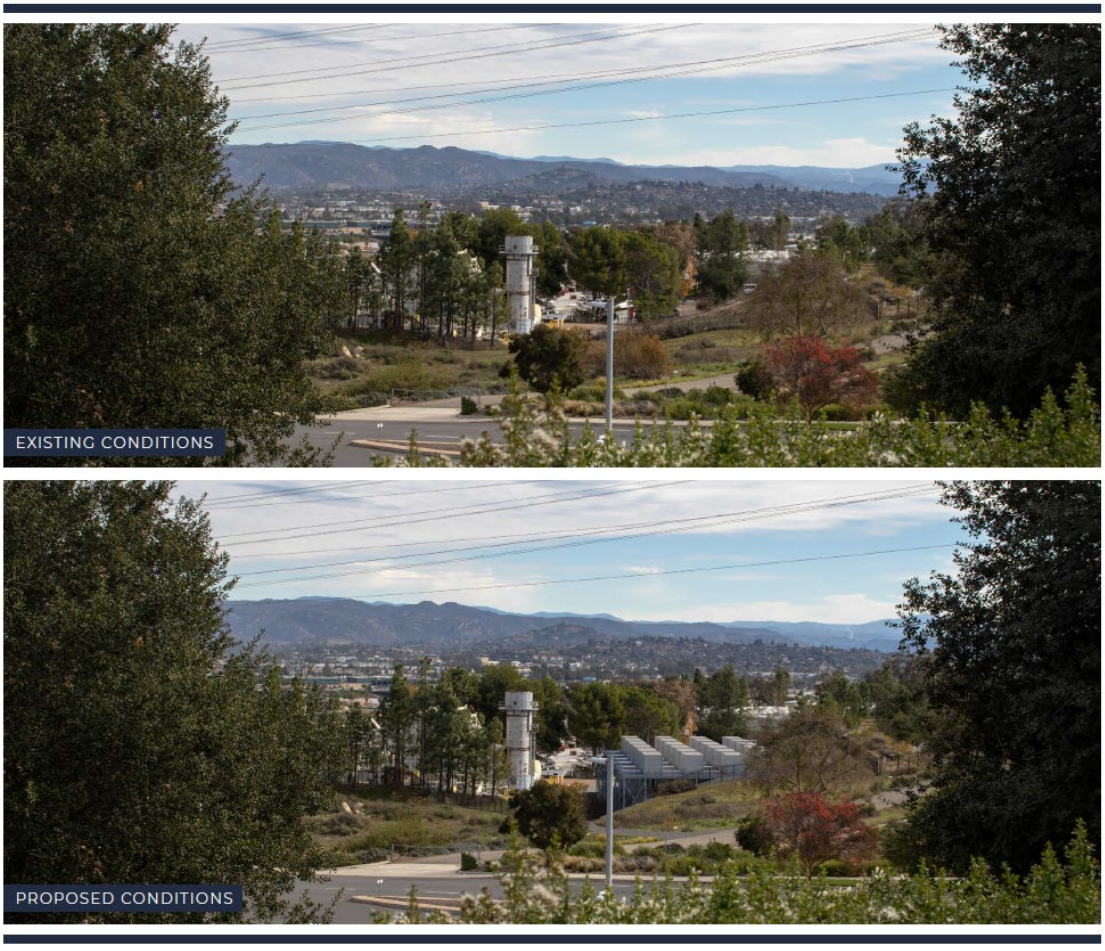
The City of Escondido had recommended that several additional requirements be incorporated in the Commission Decision. The City's requests included that per the City's Tree Preservation Ordinance, a protected tree (any oak which has a ten inch or greater diameter breast height) which is removed, shall be replaced at a minimum 2:1 ratio with minimum 24"-box sized trees. The complete list of the City's requests are documented in the 2001 CEC Staff Assessment (CEC 2001b). Energy Commission staff took note of these comments and concluded that the standard Land Use Conditions of Certification (LAND-1) requiring compliance with applicable LORS adequately addressed the City's concerns**.**

5.12.2 Environmental Analyses

The viewshed in 2024 in the vicinity of the EEPP site and the proposed Enterprise BESS Project is similar to that described above from the 2001 CEC Staff Assessment with the exception that the landscaping trees (Canary Island pines) planted in accordance with the 2001 landscaping plan for the EEPP are now present and mature on the northern and western EEPP property perimeters and effectively screen views of the site from the north and northwest.

The proposed Enterprise BESS Project aboveground facilities will be constructed primarily within the southern portion of the existing industrial EEPP site which is appropriately zoned Light Industrial (M-1). Construction of the Enterprise BESS Project will require temporary construction equipment activity use which may create a short term and insignificant visual impact.

The Enterprise BESS Project facilities will be installed to the south of the existing EEPP power block area and the BESS facilities will be similar in areal coverage to the EEPP facilities, but the BESS facilities will be shorter in height relative to the EEPP facilities. The existing EEPP facilities are up to approximately 50-feet tall whereas the BESS enclosures platform is proposed to be up to approximately 30-feet tall with the proposed stacked enclosure design. The dimensions of the individual BESS enclosures are expected to be approximately 8-feet wide by 9.5-feet tall by 20 feet long. A photo simulation of the BESS facility as viewed from the west near the Palomar Medical Center is presented below. Refer to Exhibit 1 for more photo simulations and information regarding BESS equipment dimensions.



The proposed Enterprise BESS Project includes removal of the existing hillside on the southern portion of the EEPP property and creation of a level area at approximately the same grade elevation level as the existing peaker plant facilities pad. Removal of the hillside will require installation of an up to approximately 28-foot-tall vertical wall near the southern property line to stabilize the vertical cut. The stacked BESS enclosures will be installed in the southwest portion of the EEPP site and will be visible from limited viewing points to the west. No views of the BESS site area from nearby residences, public parks or other sensitive viewing locations have been identified based on the viewshed analysis which was performed associated with preparation of the photo simulations presented on Exhibit 1. The BESS facilities would be visible from the nearby Palomar Medical Center approximately 850 feet to the west across Citracado Parkway. The southern portion of the existing peaker facilities, including the approximately 50-foot-tall stack are also visible from the Palomar Medical Center, which was built after the peaker was installed in 2001. The BESS facilities and the existing peaker facilities are also visible for short distances for travelers on Citracado Parkway which is about 350 feet to the west at its closest approach. The BESS facilities would also be visible from other locations further away with less direct views of the exposed portion of the BESS site. Like the EEPP facilities, the views of the BESS facilities from the north and northwest would be screened by the existing, mature Canary Island pine trees that were planted as part of the EEPP landscaping plan along the northern and western perimeters of the EEPP parcel. In addition, views of the EEPP and BESS areas are blocked from the west-northwest by trees on the west and elevated topography on the south.

The onsite 13.8 kV gen-tie connection from the BESS facilities to the EEPP switchyard/GSU interconnection facilities will be underground. The above ground interconnection facilities in the northern portion of the EEPP site near the EEPP switchyard would be shorter than the adjacent peaker facilities and would be screened by the existing Canary Island pines around the site perimeter in this area.

The proposed offsite fire access spur road will connect the BESS site to the existing SDG&E access road that connects to Citracado Parkway to the west. The access road spur would appear similar to the existing SDG&E access road that connects to the SDG&E Palomar Energy Center to the south.

The Enterprise BESS facilities will not be visible in foreground views from any residences or other sensitive public viewing areas. Visual simulations of the BESS facilities from identified key viewing locations, including the Palomar Medical Center, are presented in Exhibit 1.

In summary, no significant visual resource related impacts from implementation of the Enterprise BESS Project are expected.

5.12.3 Mitigation Measures

The Enterprise BESS Project will not create significant visual resource impacts that will require additional mitigation measures.

5.12.4 Consistency with LORS

The project is expected to conform to applicable laws related to visual resources.

5.12.5 Conditions of Certification

The proposed Enterprise BESS Project does not require additions to the CoCs for visual resources. An assessment of the applicability of the existing EEPP Visual Resource CoCs for the Enterprise BESS Project follows.

VIS-1: *Project structures treated during manufacture and all structures treated in the field, which are visible to the public, shall be painted in a neutral color consistent with the surrounding environment.*

Verification: *Prior to painting exposed services, the project owner shall identify the selected color for CPM approval.*

The Project will comply with CoC VIS-1. The BESS enclosures are manufactured and shipped in a standard, neutral gray color that is typical for electrical utility facilities.

VIS-2: *The project owner shall design and install all lighting such that light bulbs and reflectors are not visible from public viewing areas and illumination of the vicinity and the nighttime sky is minimized. Lighting must also be installed consistent with any local requirements.*

Verification: *The project owner shall inform the CPM of any complaints concerning lighting and when measures have been taken to correct the problem.*

The Project will comply with CoC VIS-2.

VIS-3: *The project owner shall prepare and submit to the City of Escondido for review and comment, and to the CPM for review and approval a landscaping plan that complies with City of Escondido Landscape Ordinance requirements which provides for any or all of the following, as appropriate, to screen the project from view: berms, vegetation and trees, and use of square tubular steel security fencing. Berms provided shall be ten (10) feet in height on the west and northern edges of the project site.*

Verification: *Within 30 days of certification, the project owner shall submit the landscaping plan to the local planning department and the CPM.*

The Project will comply with CoC VIS-2, as practical given site constraints. The landscaping plan required for the EEPP in 2001 was implemented and included the items required under Condition VIS-3.

In summary, the Enterprise BESS Project will not create significant visual resource impacts from sensitive public viewing locations and will not be out of character with the industrial nature of the industrially zoned property and surrounding area.

5.12.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____.2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.13 Environmental Justice

5.13.1 CEC Certification of EEPP

The CEC Staff Assessment (CEC 2001b) included a summary assessment of environmental justice related issues for the EEPP project. The CEC staff reported in the Staff Assessment in 2001 that for all siting cases, including the emergency permitting process, Energy Commission staff follows the federal guidelines' two-step screening process. The process assesses:

- Whether the potentially affected community includes minority and/or low-income populations; and
- Whether the environmental impacts are likely to fall disproportionately on minority

and/or low-income members of the community.

The CEC Staff Assessment (CEC 2001b) reported that for the Year 2000 estimates showed that the minority population within a three-mile radius of the EEPP project was growing steadily, but that this group was still less than 30 per cent of the total, and were dispersed through the surrounding census tracts. The two tracts with the greatest concentration were approximately 2.5 miles distant. The CEC Staff Assessment concluded that since the project would be screened for noise and visual disruption, and would be among the cleanest emitting facilities being built, no environmental justice issues were identified for the EEPP in 2001.

The only potential adverse effects of the EEPP project on this population would be air quality or public health impacts. Staff determined that the impacts from the EEPP project, with the implementation of staff's recommended conditions of certification, would not result in a significant adverse impact to the surrounding community. Staff determined that there were no environmental justice issues associated with the EEPP project.

The proposed Enterprise BESS Project would not involve routine air emissions, would comply with applicable noise standards, and would involve installation of facilities that would be of smaller scale than the existing peaker facilities.

5.13.2 Environmental Analyses

Construction and operation of the Enterprise BESS Project is not expected to result in any significant impacts to the environment, including air quality/greenhouse gas emissions or public health impacts. The Enterprise BESS Project would have minor emissions during the temporary construction phase and then only very minor emissions associated with the maintenance of the BESS facility. In addition, the Enterprise BESS Project is expected to reduce emissions from the EEPP when the batteries are providing power to the electrical grid in lieu of the peaker facility which is a beneficial project impact.

In summary, the Enterprise BESS Project is not expected to result in any adverse or significant impacts related to environmental justice issues and will have no disproportionate impacts on minority or economically disadvantaged communities.

5.13.3 Mitigation Measures

The Enterprise BESS Project will not result in a significant impact related to environmental justice considerations and will not require mitigation measures.

5.13.4 Consistency with LORS

The project conforms to applicable laws related to environmental justice.

5.13.5 Conditions of Certification

The proposed project does not require CoCs for environmental justice.

5.13.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____. 2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.14 Public Services/Fire Protection

5.14.1 CEC Certification of EEPP

The CEC Staff Assessment for the EEPP (CEC 2001b) included an assessment of issues related to public services and fire protection. The City of Escondido Fire Department provides fire protection as well as advanced and basic life support emergency medical service and transport for the project area. The nearest fire station is Fire Station #1 which is located less than three miles from the project site (310 N. Quince Street). As of 2001, this station provided a response time of less than seven minutes with a staff of fifteen and one duty chief. Fire Station #1 was rebuilt and upgraded in 2008/2009 to accommodate 1 paramedic fire engine, 1 truck company, 2 ambulances, and 1 battalion chief vehicle (City of Escondido 2024a). This amounts to 19 persons per shift. The City of Escondido had indicated that the City fire fighting facilities would be adequate to serve the proposed EEPP project in 2001.

The City of Escondido recommended that multiple fire safety and fire-fighting related requirements be incorporated into the Commission Decision in 2001 (CEC 2001b). Energy Commission staff took note of these comments and stated that the CEC is the ultimate approving authority for power facilities. Proper implementation and monitoring of all conditions of approval is the responsibility of the CEC compliance project manager (CPM) assigned to the project. The CPM makes every effort to coordinate with the City regarding construction and operation of power plants for which the CEC is responsible.

As stated in the CEC 2001 Staff Assessment, the City of Escondido Fire Department has adopted the Uniform Fire Code with modifications. Detailed project plans are typically reviewed by the Escondido Fire Department for compliance with their modified version of the Uniform Fire Code. The issues of concern to the City Fire Department in 2001 for the EEPP project included:

- Adequate access for fire fighting equipment
- Compliance with the Escondido Fire Code
- Fire flows in area hydrants
- Vegetation management/clearance
- Hazardous materials use

To address the City of Escondido Fire Department concerns for fire related issues, the CEC stipulated Standard Condition of Certification LAND-1 which required that the EEPP project comply with all applicable LORS. This includes fire flows, access and vegetation management/clearance. Energy Commission staff also added Condition of Certification PUB SER-2, requiring installation of fire hydrants at intervals indicated by the City Fire Marshall and access for heavy firefighting equipment. The CBO was designated to be responsible for insuring that the project complies with the City's Uniform Fire Code.

The 2001 CEC Staff Assessment noted that hazardous materials issues were addressed in the Hazardous Materials section of the report. Odors could occur around the project site only in an upset event.

The 2001 CEC Staff Assessment also noted that project application did not include any proposal to install a telephone line to the project site. Pac Bell representatives expressed concern in 2001 that the power plant could generate an electrical current in the telephone line creating a health and safety hazard. Pac Bell recommended that the project include a phone line that has a device to ensure that power generated on the phone line does not reach the Pac Bell phone system. The CEC added Condition of Certification PUB SER-1 requiring that the applicant submit the proposed phone line plans to the CPM for review and approval prior to excavations related to the phone line. The CPM was responsible for ensuring that the phone facility was constructed in a location where biological, archaeological, or paleontological resources would not be impacted. This requirement is not considered to be applicable to the Enterprise BESS Project.

5.14.2 Environmental Analyses

5.14.2.1 Public Services/Fire Protection

The battery storage technologies being considered are lithium iron phosphate (LFP) and nickel manganese cobalt (NMC) or other technologies that may become commercially available as the BESS Project undergoes final design. Planned fire protection systems include an active aerosol based thermal activated fire suppression system in each individual battery container as well as a centralized fire detection alarm system that can be configured to independently dial the Energy Management System (EMS) in the case of a fire or thermal event. Each battery will be equipped with its own coolant-based chiller to keep the batteries at an optimal temperature and prevent thermal runaway. The temperature control system will be managed by the plant controller and will send out notification to a 24/7 monitoring center. Each battery container will be equipped with a blast door designed to deploy in the event of an explosion and direct any hot gas and energy upwards and away from any adjacent equipment or personnel. The applicant will prepare a BESS Emergency Response Plan that will be combined with the existing emergency response plans for the EEPP. The applicant will coordinate with the Escondido Fire Department prior to obtaining fire permits in advance of BESS operations.

5.14.2.2 Wildfire

The CEC Final Decision and Staff Assessment for the EEPP (CEC 2001a,b) did not address wildfire hazard provisions which were enacted after the EEPP was approved in 2001. The Enterprise BESS Project site is located at 201 Enterprise Street in Escondido, California. The BESS project site is located in a highly industrialized area, and the site has been previously graded and developed with the EEPP facilities. The southern portion of the EEPP site where the BESS facilities will be installed is currently vegetated with grasses and shrubs, but the existing vegetation will be removed during site preparation to make room for the BESS facilities. The EEPP facility perimeter is planted with ornamental landscaping including mature Canary Island pines along the northern and western site boundaries. The EEPP site is bounded to the north, east, and south by existing industrial and commercial land uses. The SDG&E-owned land to the west of the EEPP includes a transmission line corridor and is open land vegetated with shrubs and grasses between the western border of the EEPP site and Citracado Parkway approximately 350 feet to the west. There is a narrow strip of vegetation consisting primarily of shrubs and grasses to south of the EEPP/BESS site on the elevated southern border of the adjacent SDG&E Palomar Energy Center and Substation.

A review of the Office of the State Fire Marshall, California Department of Fire and Forestry (CalFire), California Fire Hazard Severity Zones website viewer identifies the EEPP property and

the Enterprise BESS site area as being located in a Local Responsibility Area and not within a Very High Fire Hazard Severity Zone (VHFHSZ) (https://egis.fire.ca.gov/FHSZ/). The City of Escondido Fire Severity Zones Map identifies the EEPP/BESS site area as having a moderate fire danger (City of Escondido 2024b).

The Enterprise BESS Project facilities such as BESS enclosures, inverters, and switchyard facilities will be unoccupied structures and will be constructed primarily of non-flammable materials/metal. The facilities will be surrounded by perimeter access roads and/or a concrete wall on the southern and southwestern boundaries. The existing fire water loop connection will be available, if needed, for any incidents at the BESS facility area.

5.14.3 Mitigation Measures

The impacts related to public services and wildfire hazards are expected to be less than significant and, therefore, will not require additional mitigation measures.

5.14.4 Consistency with LORS

The project will conform to applicable laws related to public services and fire protection.

5.14.5 Conditions of Certification

The CEC stipulated the following CoCs for public services for the EEPP project in 2001:

PUB SER-1: *Prior to commencement of excavations related to the telephone line the project owner shall submit plans showing the location of the telephone facilities necessary to serve the project for review and approval.*

Verification: *The CPM shall review plans for construction of the phone line and related facilities to ensure that construction related to these facilities would occur in developed area where sensitive biological, archaeological, or paleontological resources would not be impacted.*

This Condition is not expected to be applicable to the Enterprise BESS Project. The BESS Project does not include plans to install a telephone line.

PUB SER-2: *Prior to commencement of project construction, the project owner shall have fire hydrants installed at intervals indicated by the City of Escondido Fire Marshall and access for heavy firefighting equipment shall be sufficient to accommodate fire department equipment.*

Verification: *The CBO shall inspect the site to ensure that fire equipment access and fire hydrants have been installed to meet Fire Marshall requirements.*

The Enterprise BESS Project will comply with this requirement, as applicable to the BESS Project.

The proposed Enterprise BESS Project is not expected to require new CEC CoCs for public services/fire protection.

5.14.6 References

CalFire. FHSZ Viewer. 2024. Accessed February 16, 2024. https://egis.fire.ca.gov/FHSZ/

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____.2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

City of Escondido. 2024a. Fire Station No. 1. Website accessed February 17, 2024. https://www.escondido.org/station-1.aspx

___. 2024b. City of Escondido Fire Severity Zones Map. Accessed February 17, 2024. https://fire.escondido.org/fire-severity-zone.aspx

5.15 Waste Management

5.15.1 CEC Certification of EEPP

The CEC Final Decision and Staff Assessment for the EEPP (CEC 2001a,b) did not provide an assessment of Waste Management. However, the CEC did stipulate Waste Management CoCs. The stipulated CoCs for the EEPP are applicable to the Enterprise BESS Project as well.

5.15.2 Environmental Analyses

The Enterprise BESS Project will generate small quantities of waste during construction and associated with maintenance and battery augmentation events during the operational phase. In the event that spent or degraded batteries need to be removed from the BESS facility during the operational phase and/or during decommissioning, the batteries will be handled as Universal Waste

and be recycled or disposed of in an approved manner in accordance with applicable regulations at the time of removal. No adverse impacts related to waste management will occur.

5.15.3 Mitigation Measures

The Enterprise BESS Project will not result in a significant impact related to waste management and no mitigation measures related to waste management be required.

5.15.4 Consistency with LORS

The project conforms to applicable laws related to waste management.

5.15.5 Conditions of Certification

The following EEPP CoCs for waste management apply to the Enterprise BESS Project:

WASTE-1: *The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to producing any hazardous waste.*

Verification: *The project owner shall keep its copy of the identification number on file at the project site.*

WASTE-2: *The project owner shall have an environmental professional available for consultation during soil excavation and grading activities. The environmental professional shall be given full authority to oversee any earth moving activities that have the potential to disturb contaminated soil. The environmental professional shall meet the qualifications of such as defined by the American Society for Testing and Materials designation E 1527-97 Standard Practice for Phase I Environmental Site Assessments.*

Verification: *If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities, the environmental professional shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and make a recommended course of action. The environmental professional shall have the authority to suspend construction activity at that location. If, in the opinion of the environmental professional, remediation is to be required, the project owner shall consult with the CPM and a decision will be made by the CPM within 24 hours as to how to proceed.*

5.15.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____.2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

5.16 Worker Safety

5.16.1 CEC Certification of EEPP

The CEC Final Decision and Staff Assessment for the EEPP (CEC 2001a,b) did not provide an assessment of Worker Safety. However, the CEC did stipulate a worker safety related CoC for compliance with Title 8 of the California Code of Regulations (CCR), beginning with Part 450 (8 CCR Part 450 et seq). The Enterprise BESS Project will comply with applicable California Department of Industrial Relations (DIR), Division of Occupational Safety and Health (CalOSHA), Title 8 and California Labor Code requirements during the construction and operation of the project.

5.16.2 Environmental Analyses

By complying with the existing condition of certification, as applicable, the Enterprise BESS Project construction and operational phase activities would comply with applicable worker safety protections and all applicable LORS.

5.16.3 Mitigation Measures

The Enterprise BESS impacts related to worker safety are less than significant and, therefore, will not require additional mitigation measures.

5.16.4 Consistency with LORS

The project conforms to applicable laws related to worker safety.

5.16.5 Conditions of Certification

The following EEPP CoC for worker safety generally applies to the Enterprise BESS Project. However, portions of Title 8 CCR, beginning with Part 450 do not apply to the Enterprise BESS

Project such as the portions addressing regulations for Unfired Pressure Vessel Safety Orders et al.

WORKER SAFETY-1: *The project owner must comply with all requirements in Title 8 of the California Code of Regulations, beginning with Part 450 (8 CCR Part 450 et seq).*

Verification: *The project owner shall submit to the CPM a letter attesting to compliance with the above and shall report any violations to the CPM.*

5.16.6 References

California Energy Commission (CEC). 2001a. Final Decision, Application for Certification of the CalPeak Enterprise #7 Peaker Project by CalPeak Power Enterprise, LLC. June 6, 2001.

____.2001b. CalPeak Enterprise #7 Escondido (01-EP-10) Staff Assessment for Emergency Permit. June 1, 2001.

APPENDIX B
ENTERPRISE BESS-ONLY CONDITIONS OF CERTIFICATION

Based on a review of existing CEC Conditions of Certification for the Enterprise Emergency Peaker Project (EEPP), this appendix presents a list of assumed Enterprise BESS-Only Conditions. It is assumed that the CEC will specify Conditions of Certification specific to the Enterprise BESS Project and that BESS compliance will be tracked by the CEC against these specific Conditions.

Table B-1 presents a summary of the assumed Enterprise BESS-Only Conditions, including an itemization of EEPP Conditions that are assessed to be “not applicable” to the Enterprise BESS Project subject to CEC review and concurrence. In addition, some Conditions will need to be reworded to facilitate compliance and/or to make them specific to the BESS Project versus the EEPP project.

Table B-1. Summary List of Assumed Enterprise BESS-Only Conditions of Certification

Topic	Summary of Existing CEC Conditions for Enterprise Emergency Peaker Project[1]	Applicable to BESS Project (Y/NA)[2]
Air Quality	AQ-1: Construction Fugitive Dust Mitigation Plan	Y
	AQ-2: SDAPCD ATC/PTO Permit Compliance	Not Applicable (NA) (no air permit required for BESS)
	AQ-3: SDAPCD ATC BACT Compliance	NA (no air permit required for BESS)
Biological Resources[3]	BIO-1: Avoid all Impacts to Legally Protected Species and their Habitat	Y
	BIO-2: Avoid all Significant Impacts to Designated Critical Habitat	Y
	BIO-3: Avoid all Impacts to Locally Designated Sensitive Species and Protected Areas	Y
	BIO-4: Reduce Risk of Bird Electrocution via Facilities Design in Accordance with APLIC 1996	Y
	BIO-5: Project Biologist and CPM Construction Duties and Authority to Stop Work	Y
	BIO-6: Decommissioning Reclamation Requirements for Reestablishment of Pre-construction Biological Resource Values	Y
	BIO-7: Pre-construction FWS Protocol Surveys for California Gnatcatchers	Y
	BIO-8: Raptor Breeding Season Protocol Survey Requirements	Y
	BIO-9: Fencing Sensitive Habitat Prior to Site Mobilization and Post Construction Site Review	Y
	BIO-10: Post Construction Impacted Habitat and Mitigation Compensation Plans at 2:1 for DCSS and 0.5:1 for NNG	Y
	BIO-11: Restoration Plan Requirement for Offsite Construction Laydown Area	Y
Cultural Resources	CUL-1: Avoid all Significant Impacts to Cultural Resources and Inadvertent Discovery Requirements for Suspected Cultural Material or Human Remains	Y
Facility Design	GEN-1: Design Project in Accordance with CA Building Code and Applicable LORS	Y
	GEN-2: Schedule of Facility Design Submittals	Y
Hazardous Materials Management	HAZ-1: CPM Approval Requirement for Use of Hazardous Materials in Reportable Quantities	Y

Topic	Summary of Existing CEC Conditions for Enterprise Emergency Peaker Project[1]	Applicable to BESS Project (Y/NA)[2]
	HAZ-2: Hazardous Material Business Plan and Risk Management Plan Requirements for CPM and County Fire Department Review	Y
Land Use	LAND-1: Federal, State, and Local LORS Compliance Requirements	Y
	LAND-2: Driveway Plans Review by City of Escondido Public Works Department	Y
Noise	NOISE-1: Compliance with Applicable Community Noise Standards	Y
	NOISE-2: Residents Notification within One Mile Prior to Start of Rough Grading and Noise Complaint Process	Y
	NOISE-3: Noise Complaint Documentation and Resolution	Y
	NOISE-4: Night Construction Time Limitations	Y
Paleontological Resources	PAL-1: Avoid all Significant Impacts to Paleontological Resources	Y
Public Services	PUB SER-1: Plan Submittal Requirement for Telephone Line Excavations	NA (no telephone line excavation planned)
	PUB SER-2: Fire Hydrant and Access Road Requirements	Y
Soil & Water	SOIL & WATER-1: NPDES for Construction	Y
	SOIL & WATER-2: Erosion Prevention and Sediment Control Plan	Y
	SOIL & WATER-3: Valid Water Service Agreement Documentation	Y
	SOIL & WATER-4: Wastewater Discharge Permit	NA (no onsite wastewater discharge planned)
	SOIL & WATER-5: Wastewater Disposal via Tanker Truck to Appropriate Disposal Facility	Y
	SOIL & WATER-6: SWPPPs with BMPs	Y
Traffic and Transportation	TRANS-1: Transportation Permits/Overweight & Oversize Vehicles	Y
	TRANS-2: Encroachment Permits	Y
	TRANS-3: Licensed Hazardous Material Haulers	Y
	TRANS-4: Roadway Repairs	Y
	TRANS-5: Driveway and Parking Area Paving Requirements	Y
Transmission System Engineering	TSE-1: Transmission Facilities Design, Construction, and Operation Requirements as per GO 95 et al	Y

Topic	Summary of Existing CEC Conditions for Enterprise Emergency Peaker Project[1]	Applicable to BESS Project (Y/NA)[2]
Visual Resources	VIS-1: Structure Color Plan	Y
	VIS-2: Shielded Lighting and Local Requirements Compliance	Y
	VIS-3: Landscape Plan in accordance with City of Escondido Landscape Ordinance Requirements	Y
Waste Management	WASTE-1: Hazardous Waste Generator ID (DTSC)	Y
	WASTE-2: Environmental Professional for Evaluation of Potentially Contaminated Soil if Encountered	Y
Worker Safety	WORKER SAFETY-1: Compliance with CCR Title starting with Part 450 (8 CCR Part 450 et seq)	Y

[1]Refer to Enterprise Emergency Peaker Project (01-EP-10) Conditions of Certification as Amended (updated August 12, 2020) for full text of existing Conditions of Certification, including Verification requirements.

[2]Refer to the environmental analyses in Section 5/Appendix A for more detail.

[3]The applicant proposes adding a new Condition, BIO-12, Worker Environmental Awareness Program for biological resources with focus on California gnatcatcher as described in Appendix A, Section 5.4, Biological Resources and Appendix D.

APPENDIX C

AIR QUALITY AND GREENHOUSE GAS STUDY

Enterprise Battery Energy Storage System (BESS) Project

Air Quality and Greenhouse Gas Study

prepared for

Enterprise BESS LLC
201 Enterprise Street
Escondido, California 92029

prepared by

Rincon Consultants, Inc.
8825 Aero Drive, Suite 120
San Diego, California 92123

March 2024

rincon | CELEBRATING 30 YEARS
RINCON CONSULTANTS, INC. SINCE 1994

Table of Contents

Tables

Figures

Appendices

1 Project Description

1.1 Introduction

This study analyzes the air quality and greenhouse gas (GHG) emissions impacts associated with the construction, and operation of the Enterprise Battery Energy Storage System (BESS) Project in Escondido in San Diego County, California. Table 1 provides a summary of Project impacts.

Table 1 Summary of Impacts

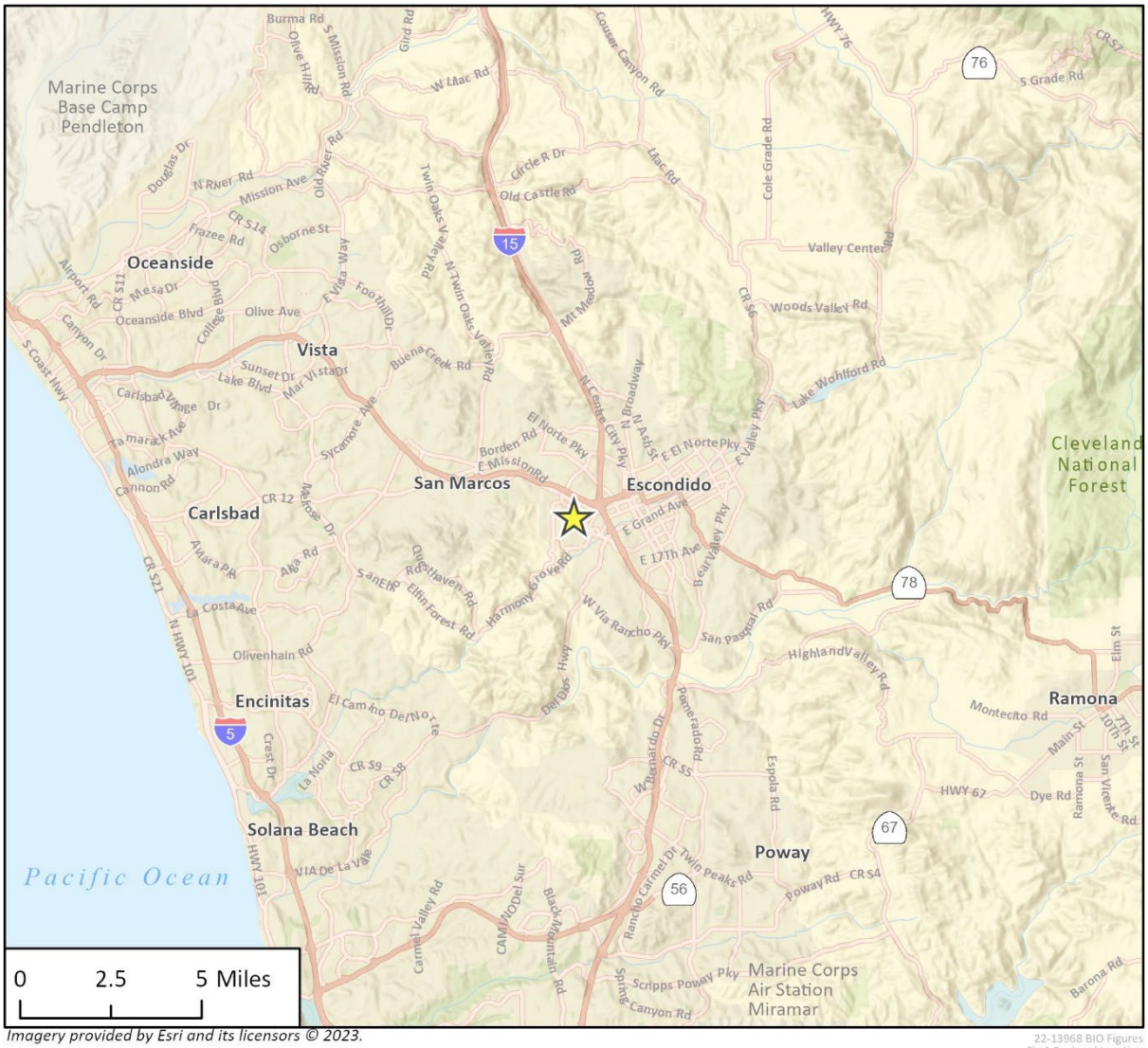
Issue	Proposed Project's Level of Significance	Applicable Recommendations
Would the project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant impact (Construction) Less than significant impact (Operation)	None
Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?	Less than significant impact (Construction) Less than significant impact (Operation)	None
Would the project expose sensitive receptors to substantial pollutant concentrations including air toxics such as diesel particulates?	Less than significant impact (Construction) Less than significant impact (Operation)	None
Would the project create objectionable odors affecting a substantial number of people?	Less than significant impact (Construction) Less than significant impact (Operation)	None
Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than significant impact (Construction) Less than significant impact (Operation)	None
Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?	Less than significant impact (Construction) Less than significant impact (Operation)	None

1.2 Project Summary

Project Location

The proposed Enterprise BESS Project is located at 201 Enterprise Street, Escondido, California, at Assessor's Parcel Number (APN) APN 232-410-45-00, co-located with the existing CalPeak Power Enterprise Emergency Peaker Plant (EEPP). The Study Area is located generally west of Interstate 15 (I-15) and south of Ronald Packard Parkway [State Route (SR) 78] in Escondido, California (Figure 1 and Figure 2). The EEPP property is located approximately 300 feet east of Citracado Parkway and 400 feet south of Auto Park Way and is bound by industrial land uses to the north, east, south, and west. Other land uses in the area include single-family residential approximately 3,168 feet to the northeast and 1,100 feet to the northwest.

Figure 1 Regional Location



Imagery provided by Esri and its licensors © 2023.

22-13968 BIO Figures
Fig 1 Regional Location

Figure 2 Study Area

Imagery provided by Microsoft Bing and its licensors © 2024.

22-13968 BIO Figures
Fig 2 Project Location

Project Description

Enterprise BESS LLC plans to construct, own and operate a nominal 52 megawatt (MW) Battery Energy Storage System (BESS) project (Project). The Project is located at 201 Enterprise Street, Escondido, California, on parcel APN 232-410-45-00. The Project will be co-located with the existing CalPeak Power–Enterprise Emergency Peaker Plant (EEPP) that was licensed by the California Energy Commission (CEC) in 2001 (CEC Docket No. 01-EP-10). Figure 3 shows the defined Project Area.

The proposed BESS Project will support California's current need for additional electrical supply capacity during high peak load demand periods. The proposed BESS Project would utilize approximately 1.2 acres of available open areas within the overall 2.94-acre EEPP parcel, plus approximately 0.6 acre of additional land adjacent to the EEPP parcel. The Project will contain stacked containerized battery systems with internal heating ventilation and air conditioning (HVAC) and internal fire detection and fire suppression systems in each container, battery management systems (BMS), stacked power conversion systems (PCS) (also called inverters), transformers, and electrical conductors. The Project includes an approximately 400-foot-long underground 13.8 kilovolt (kV) gen-tie line to connect the BESS to the existing EEPP switchyard generation step-up (GSU) transformer. The Project includes construction of an access road spur to southwest portion of the BESS site from an existing San Diego Gas & Electric (SDG&E) access road that connects Citracado Parkway to the existing SDG&E Palomar facility to the south. The Enterprise BESS Project includes the addition of a new offsite stormwater conveyance component consisting of buried pipe adjacent to the western EEPP property on land to be leased by SDG&E (approximately 25 feet wide by 300 feet long with 20 feet of the width on leased SDG&E land and 5 feet on the western boundary of the EEPP parcel). This new stormwater conveyance will be designed to carry stormwater via gravity flow from the southern portion of the EEPP site where the proposed BESS facilities are located to an existing stormwater conveyance which outfalls into an existing detention basin on SDG&E land to the northwest of the EEPP property.

A retaining wall up to approximately 28-feet tall will be constructed along the southern site boundary to stabilize the vertical cut near the property line that is associated with removal of the existing hillside and the needed creation of a level area for the Project. The Project development plan includes the installation of sheet piles along the southern property line to stabilize the cut slope prior to installation of the retaining wall. To do this removal of vegetation, site grading, and excavation of soil and bedrock will be necessary. An approximately 20-foot-wide by 600-foot-long temporary construction work area on the northern portion of the adjacent SDG&E property will be utilized to construct the retaining wall.

The Enterprise BESS will be connected to the electrical grid via the existing GSU at the EEPP, which has an existing 69 kV connection to the SDG&E Escondido Substation to the north. The BESS Project will not require any high voltage modifications at the EEPP switchyard or the existing offsite 69 kV line. Operation of the BESS facility will be integrated with the existing EEPP, but the BESS will be charged from the electrical grid and not the EEPP. The BESS and the EEPP may be operated simultaneously in accordance with the market-optimized dispatch instructions received from the California Independent System Operator (CAISO's) Automated Dispatching System (ADS), but the combined output will be control-limited to never exceed the limit of the Generator Interconnection Agreement.

The Enterprise BESS Project will require discretionary permitting involving approval of a Petition for Post-Certification Amendment from the CEC.

The proposed Project's operational life and associated land leases are anticipated to be up to 40 years.

Figure 3 Defined Project Area

Imagery provided by Microsoft Bing and its licensors © 2024.

22-13968 BIO Figures
Fig X Project Components_Study Area

Construction

Construction site mobilization is currently anticipated to begin in the first quarter of 2025. Typical construction hours are expected to be from 9 AM to 5 PM on Mondays through Fridays and 10 AM to 5 PM on Saturdays. Construction equipment to be utilized include the following: backhoes, bore/drill rigs, compactors, compressors, cranes, dozers, graders, excavators, forklifts, loaders (front-end, rubber-tired, and skid steer), pavers, portable electric generators, rough terrain forklifts, sweepers, welders, dump trucks, and water trucks. A percussion pile driver will also be needed for construction of the retaining wall. A detailed list of construction equipment is provided in Appendix A.

Operation

Operation of the Enterprise BESS facility will be integrated with the existing EEPP, but the BESS will be charged from the electrical grid and not the EEPP. Commercial operation is currently anticipated for the fourth quarter of 2025. The facilities would be expected to require regular maintenance visits by two workers up to twice per week on average. The planned Project life is 40 years.

Enterprise Emergency Peaker Project Air Quality Conditions of Certification

The impact assessment presented herein assumes that the following CEC air quality conditions for the EEPP shall also apply for the Enterprise BESS Project, as applicable.

AQ-1: Prior to the commencement of project construction, the project owner shall prepare a Construction Fugitive Dust Mitigation Plan that will specifically identify fugitive dust mitigation measures that will be employed for the construction of the project and related facilities.

Measures that should be addressed include the following:

- The identification of the employee parking area(s) and surface of the parking area(s);
- The frequency of watering of unpaved roads and disturbed areas;
- The application of chemical dust suppressants;
- The stabilization of storage piles and disturbed areas;
- The use of gravel in high traffic areas;
- The use of paved access aprons;
- The use of posted speed limit signs;
- The use of wheel washing areas prior to large trucks leaving the defined project area;
- The methods that will be used to clean tracked-out mud and dirt
- From the defined project area onto public roads; and
- For any transportation of borrowed fill material, the use of covers on vehicles, wetting of the material, and insuring appropriate freeboard of material in the vehicles.

Verification: The project owner shall submit to the CPM a letter attesting to compliance with the above and shall report any violations to the CPM.

AQ-2: The project owner shall comply with the terms and conditions of the Authority to Construct and the Permit to Operate issued by San Diego County Air Pollution Control District.

Verification: In the event that the air district finds the project to be out of compliance with the terms and conditions of the Authority to Construct, the project owner shall notify the CPM of the violation, and the measures taken to return to compliance, within five (5) days.

AQ-3: The project owner shall operate the project in compliance with all Best Available Control Technology (BACT) standards imposed by the Air District in its Authority to Construct. Failure to meet these standards will result in a finding that the project owner is out of compliance with the certification.

2 Background

2.1 Environmental Settings

Climate and Meteorological Conditions

The Study Area is in the City of Escondido within San Diego County. The BESS Study Area is in the San Diego Air Basin (SDAB), which is bordered by the Pacific Ocean to the west, the South Coast Air Basin (SCAB) to the north, the Salton Sea Air Basin to the east, and the U.S./Mexico border to the south. Regional wind patterns are dominated by onshore sea breezes during the day, and winds generally slow or reverse direction toward the sea at night. Temperature and precipitation can vary widely within the SDAB, where average annual precipitation ranges from approximately 10 inches in the coastal and inland areas to over 30 inches in the mountains. In general, milder annual temperatures are experienced in the maritime and coastal areas, whereas the interior and desert areas experience warmer summers and cooler winters. The majority of the unincorporated County is located in the interior and desert zones, approximately 25 miles inland from the coast to the County's eastern border. The Study Area is located approximately 17 miles inland from the inner harbor of San Diego Bay.

High air pollution levels in coastal communities of San Diego can often occur when polluted air from the SCAB, particularly from Los Angeles, travels southwest over the ocean at night and is brought on shore into San Diego by the sea breeze during the day (San Diego Air Pollution Control District [SDAPCD] 2015). Ozone and its precursor emissions (reactive organic gases [ROG] and nitrogen oxides [NO_X]) are also transported to San Diego during relatively mild Santa Ana weather conditions, which tend to occur between October through March when high pressure builds over the Great Basin of the central Nevada region and hot and dry winds blow westward from the interior regions of the Sierra Nevada, San Gabriel, and San Bernardino mountains to the coastline (Fovell 2002). However, during strong Santa Ana weather conditions, pollutants are pushed away from San Diego far out to sea.

Air pollutant emission sources in the SDAB are typically grouped into two categories: stationary and mobile sources. Mobile source emissions can be attributed to vehicles and transportation-related activities. Stationary sources can be divided into two major subcategories: point and area sources. Point source emissions originate from manufacturing and industrial processes, while area emissions are generated from residential heaters, small engines, and other consumer products. Both major emissions categories are widely distributed within SDAB and may have a cumulative effect.

2.2 Air Quality

Air Pollutants of Concern

The federal and state Clean Air Acts mandate the control and reduction of certain air pollutants. Under these laws, the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for criteria air pollutants that are a threat to public health and welfare. Criteria pollutants that are a concern in the SDAB are described below.

Ozone

Ozone (O_3) is a highly oxidative unstable gas produced by a photochemical reaction (triggered by sunlight) between NO_X and volatile organic compounds (VOC).[1] VOC is composed of non-methane hydrocarbons (with specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and NO_2. NO_X is formed during the combustion of fuels, while VOC is formed during the combustion and evaporation of organic solvents. As a highly reactive molecule, O_3 readily combines with many different atmosphere components. Consequently, high O_3 levels tend to exist only while high VOC and NO_X levels are present to sustain the O_3 formation process. Once the precursors have been depleted, O_3 levels rapidly decline. Because these reactions occur on a regional rather than local scale, O_3 is considered a regional pollutant. In addition, because O_3 requires sunlight to form, it mainly occurs in concentrations considered serious between April and October. People most at risk from O_3 include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. In addition, people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from O_3 exposure. Depending on the level of exposure, O_3 can cause coughing and a sore or scratch throat; make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath; inflame and damage the airways; make the lungs more susceptible to infection; aggravate lung diseases such as asthma, emphysema, and chronic bronchitis; and increase the frequency of asthma attacks (USEPA 2023a).

Nitrogen Dioxide

NO_2 is a by-product of coal, oil, gas or diesel fuel combustion. The primary sources are motor vehicles and industrial boilers, and furnaces. The principal form of NO_x produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2, commonly called NO_x. NO_2 is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma and children and the elderly are generally at greater risk for the health effects of NO_2 (USEPA 2023b). NO_2 absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of O_3/smog and acid rain.

Carbon Monoxide

CO is a localized pollutant found in high concentrations only near its source. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic's incomplete combustion of petroleum fuels. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability to get oxygenated blood to their hearts in situations where they need more oxygen than usual. As a result, they are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to

[1] CARB defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term VOC is used in this report.

elevated CO may result in reduced oxygen to the heart accompanied by chest pain, also known as angina (USEPA 2023c).

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ are comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mist. Both PM_{10} and $PM_{2.5}$ are emitted into the atmosphere as by-products of coal, gas, oil, or diesel fuel combustion and wind erosion of soil and unpaved roads. The atmosphere, through chemical reactions, can form particulate matter. The characteristics, sources, and potential health effects of PM_{10} and $PM_{2.5}$ can be very different. PM_{10} is generally associated with dust mobilized by wind and vehicles. In contrast, $PM_{2.5}$ is generally associated with combustion processes and formation in the atmosphere as a secondary pollutant through chemical reactions. PM_{10} can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. For $PM_{2.5}$, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases (CARB 2023a).

Sulfur Dioxide

SO_2 is included in a group of highly reactive gases known as "oxides of sulfur." The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO_2 (USEPA 2023d).

Lead

Pb is a metal found naturally in the environment, as well as in manufacturing products. The major sources of Pb emissions historically have been mobile and industrial. However, due to the USEPA 's regulatory efforts to remove Pb from gasoline, atmospheric Pb concentrations have declined substantially over the past several decades. The most dramatic reductions in Pb emissions occurred before 1990 due to the removal of Pb from gasoline sold for most highway vehicles. Pb emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least partly due to national emissions standards for hazardous air pollutants (USEPA 2014). As a result of phasing out leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest Pb level in the air is generally found near Pb smelters. Other stationary sources include waste incinerators, utilities, and Pb-acid battery manufacturers. Pb can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system depending on exposure. Pb exposure also affects the oxygen-carrying capacity of the blood. The Pb effects most likely encountered in current populations are neurological in children. Infants and young children are susceptible to Pb exposures, contributing to behavioral problems, learning deficits, and lowered IQ (USEPA 2023e).

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, TACs are airborne substances and a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may

pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70th the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2023a).

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health. People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2023f).

Sensitive Receptors

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with greater associated exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The closest sensitive receptors are the Palomar Medical Center approximately 500 feet to the west, and the residential receptors approximately 1,100 feet to the northwest and 0.6 mile to the northeast. The CARB's Air Quality and Land Use Handbook: a Community Health Perspective recommends a buffer zone of up to 1,000 feet between various pollutant sources and sensitive receptors.

2.3 Greenhouse Gas

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global

warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).[2]

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The IPCC expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2023). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

Greenhouse Gases

Carbon Dioxide

Carbon dioxide (CO_2) is the primary GHG emitted through human activities. In 2020, CO_2 accounted for about 79 percent of all U.S. GHG emissions from human activities. CO_2 is naturally present in the atmosphere as part of the Earth's carbon cycle (the natural circulation of carbon among the atmosphere, oceans, soil, plants, and animals). Human activities are altering the carbon cycle–both by adding more CO_2 to the atmosphere, and by influencing the ability of natural sinks, like forests and soils, to remove and store CO_2 from the atmosphere. While CO_2 emissions come from a variety of natural sources, human-related emissions are responsible for the increase that has occurred in the atmosphere since the industrial revolution (USEPA 2022).

[2] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by CARB uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

Methane

Methane (CH_4) is a colorless, odorless gas and is the major component of natural gas. In 2020, methane accounted for about 11 percent of all U.S. GHG emissions from human activities. Human activities emitting methane include leaks from natural gas systems and the raising of livestock. Methane is also emitted by natural sources such as natural wetlands. In addition, natural processes in soil and chemical reactions in the atmosphere help remove CH_4 from the atmosphere. Methane's lifetime in the atmosphere is much shorter than carbon dioxide (CO_2), but CH_4 is more efficient at trapping radiation than CO_2. Pound for pound, the comparative impact of CH_4 is 25 times greater than CO_2 over a 100-year period (USEPA 2022).

Nitrous Oxide

Nitrous oxide (N_2O) is a clear, colorless gas with a slightly sweet odor. In 2020, nitrous oxide accounted for about seven percent of all U.S. GHG emissions from human activities. Human activities such as agriculture, fuel combustion, wastewater management, and industrial processes are increasing the amount of N_2O in the atmosphere. Nitrous oxide is also naturally present in the atmosphere as part of the Earth's nitrogen cycle and has a variety of natural sources. Nitrous oxide molecules stay in the atmosphere for an average of 114 years before being removed by a sink or destroyed through chemical reactions. The impact of one pound of N_2O on warming the atmosphere is almost 300 times that of one pound of carbon dioxide (USEPA 2022).

Fluorinated Gases (HFCs, PFCs and SF_6)

Unlike many other GHGs, fluorinated gases have no natural sources and only come from human-related activities. They are emitted through their use as substitutes for ozone-depleting substances (e.g., as refrigerants) and through a variety of industrial processes such as aluminum and semiconductor manufacturing. Many fluorinated gases have very high GWPs relative to other GHGs, so small atmospheric concentrations can have disproportionately large effects on global temperatures. They can also have long atmospheric lifetimes, in some cases, lasting thousands of years. Like other long-lived GHGs, most fluorinated gases are well-mixed in the atmosphere, spreading around the world after they are emitted. Many fluorinated gases are removed from the atmosphere only when they are destroyed by sunlight in the far upper atmosphere. In general, fluorinated gases are the most potent and longest lasting type of GHGs emitted by human activities (USEPA 2022).

The use of SF_6 in electric utility systems and switchgear, including circuit breakers, poses a concern, because this pollutant has an extremely high global warming potential (one pound of SF_6 is the equivalent warming potential of approximately 24,600 pounds of CO_2). SF_6 is inert and non-toxic and is encapsulated in the breaker assembly. SF_6 is a GHG with substantial global warming potential because of its chemical nature and long residency time within the atmosphere. However, under normal conditions, it would be completely contained in the equipment and SF_6 would only be released in the unlikely event of a failure, leak, or crack in the circuit breaker housing. New circuit breaker designs have been developed over the past several years to minimize the potential for leakage, compared to that of past designs. SDG&E is proactively working to remove SF_6 — a very potent GHG — from 900 distribution switches and deploy only non-SF_6 equipment by 2040. In 2021, SDG&E energized the first non-SF_6, 69 kV dry air circuit breaker at our Glencliff Substation. It is assumed that SF_6 will not be present in the circuit breakers utilized for the Enterprise BESS Project.

Greenhouse Gas Emissions Inventory

Global Emissions Inventory

Worldwide anthropogenic GHG emissions totaled 47,000 million metric tons (MMT) of CO_2e in 2015, which is a 43 percent increase from 1990 GHG levels (USEPA 2023g). Specifically, 34,522 MMT of CO_2e of CO_2, 8,241 MMT of CO_2e of CH_4, 2,997 MMT of CO_2e of N_2O, and 1,001 MMT of CO_2e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and fuel use from vehicles and buildings, which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed three percent and international transportation sources contributed two percent. These sources account for approximately 98 percent because there was a net sink of two percent from land use change (including afforestation/reforestation and emissions removals by other land use activities) (USEPA 2023g).

United States Emissions Inventory

Total U.S. GHG emissions were estimated at 6,558 MMT of CO_2e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019. Since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions; while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2023h).

California Emissions Inventory

Based on a review of CARB California Greenhouse Gas Inventory for the years between 2000-2020, California produced 369.2 MMT of CO_2e in 2020, which is 35.3 MMT of CO_2e lower than 2019 levels. The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. The major source of GHG emissions in California is the transportation sector, which comprises 37 percent of the state's total GHG emissions from on-road and off-road vehicles, aviation, rail, and water-borne vessels, as well as a few other smaller sources activity. The industrial sector is the second largest source, comprising 20 percent of the state's GHG emissions while electric power accounts for approximately 16 percent. The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the state of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO_2e (CARB 2022). The annual 2030 statewide target emissions level is 260 MMT of CO_2e (CARB 2017).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. The year 2022 was the

sixth warmest year since global records began in 1880 at 0.86°C (1.55°F) above the 20th century average of 13.9°C (57.0°F). This value is 0.13°C (0.23°F) less than the record set in 2016 and it is only 0.02°C (0.04°F) higher than the last year's (2021) value, which now ranks as the seventh highest (National Oceanic and Atmospheric Administration 2022). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land Surface Air Temperature and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014 and 2018).

Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years. *California's Fourth Climate Change Assessment* (California Natural Resource Agency 2019) includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies. However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that climate change could generate in California.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century. Higher temperatures are conducive to air pollution formation and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (California Natural Resource Agency 2019). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. With increasing temperatures, shifting weather patterns, longer dry seasons, and more dry fuel loads, the frequency of large wildfires and area burned is expected to increase (California Natural Resources Agency 2021).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Environmental Protection Agency 2018). For example, the winter of 2022-2023 had severe storms and flooding from increased rainfall and snowmelt, which the California Department of Water Resources identified as "the latest example that California's climate is becoming more extreme" (California Department of Water Resources 2023). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western United States, including the

Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts. The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce total snowpack levels by reducing the amount of snowfall due to increased temperatures. Projections indicate that the average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (California Natural Resource Agency 2019).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (California Natural Resource Agency 2019). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.4 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2023). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Oceanic and Atmospheric Administration 2022). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise ranging between 0.25 to 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario (IPCC 2021). A rise in sea levels, in a recent study using the U.S. Geological Survey Coastal Storm Modeling System, could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (California Natural Resource Agency 2019). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has an over $51 billion annual agricultural industry that produces over a third of the country's vegetables and three-quarters of the country's fruits and nuts (California Department of Food and Agriculture 2022). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (California Natural Resource Agency 2019). Temperature increases could also change the time of year certain crops such as wine grapes bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions due to higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and

ecosystem processes, such as carbon cycling and storage (Parmesan 2006; California Natural Resource Agency 2019).

2.4 Regulatory Setting

Air Quality

Federal and State

The federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) establish ambient air quality standards and establish regulatory authorities designed to attain those standards. As required by the CAA, the United States Environmental Protection Agency (USEPA) has identified criteria pollutants and has established National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and Pb.

Under the CCAA, California has adopted the California Ambient Air Quality Standards (CAAQS), which are more stringent than the NAAQS for certain pollutants and averaging periods. Table 2 presents the current attainment status for each regulated pollutant and Table 3 presents the federal and state standards for regulated pollutants. California also has established state ambient air quality standards for sulfates, hydrogen sulfide, and vinyl chloride.

As required by the federal CAA and the CCAA, air basins or portions thereof have been classified as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether the standards have been achieved. The air quality in an attainment area meets or is better than the NAAQS or CAAQS. A non-attainment area has air quality that is worse than the NAAQS or CAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS.

The San Diego Air Pollution Control District (SDAPCD) is the designated air quality control agency for the SDAB. The SDAB currently meets the NAAQS for all criteria air pollutants except ozone and is classified an attainment/maintenance area for CO, and unclassifiable for PM_{10}. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone, PM_{10}, and $PM_{2.5}$ (SDAPCD 2024). Characteristics of ozone, CO, NO_2, and suspended particulates are described in the subsequent sections.

Table 2 Federal and State Ambient Air Quality Standards

Pollutant	Federal Attainment Status	State Attainment Status
Ozone	Non-attainment (8-hr)/Attainment (1-hr)	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Particulate Matter 10 (PM_{10})	Unclassified	Nonattainment
Particulate Matter 2.5($PM_{2.5}$)	Attainment	Nonattainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility	No Federal Standard	Unclassified
Lead	Attainment	Attainment

Sources: SDAPCD 2024.

Existing Ambient Air Quality

The SDAPCD maintains the ambient air monitoring network and records air quality readings throughout the SDAB. The monitoring stations aim to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. Current Air Quality information is obtained from the same, or closest monitoring area where the project is located. The monitoring station closest to the Study Area is the San Diego-Kearney Villa Road Station (located at 6125A Kearney Villa Rd, San Diego), approximately 20 miles south of the Study Area. This station collects 8-hour ozone, hourly ozone, NO_2, and $PM_{2.50}$ measurements. The El Cajon- Lexington Elementary School station (located at 533 South First Street in El Cajon) collects PM_{10} measurements for 2019 and before. This station is approximately 25 miles southwest of the Study Area. There is no data available in the County of San Diego for PM_{10} measurements past 2019. Table 3 indicates the number of days each federal and state standard exceeded at these stations for their respective pollutants. As shown therein, 2020, 2021 and 2022, ozone measurements exceeded the federal and state eight-hour ozone standards, and state one-hour ozone standards. PM_{10} measurements do not exceed the federal standard and standard in 2020. There is no measurement data for 2021 and 2022 for PM_{10}. $PM_{2.5}$ measurements exceeds 2020. No other state or federal standards were exceeded at these monitoring stations. Since CO and SO_2 are in attainment with the SDAB region, they are not monitored at the nearest air monitoring stations and therefore ambient air quality is not reported for these two pollutants.

Table 3 Ambient Air Quality at the Nearest Monitoring Station

Pollutant	2020	2021	2022
Ozone (ppm), 8-Hr Average[1]	0.102	0.071	0.083
Number of Days of state exceedances (>0.070 ppm)	12	2	2
Number of days of federal exceedances (>0.070 ppm)	10	1	2
Ozone (ppm), Worst Hour[1]	0.123	0.095	0.095
Number of days of state exceedances (>0.09 ppm)	2	1	1
Number of days of federal exceedances (>0.112 ppm)	0	0	0
Nitrogen Dioxide (ppm), Worst Hour[1]	0.052	0.060	0.051
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns, μg/m^3, Worst 24 Hours[2]	38.7	*	*
Number of days of state exceedances (>50 μg/m^3)	0	*	*
Number of days above federal standard (>150 μg/m^3)	0	*	*
Particulate Matter <2.5 microns, μg/m^3, Worst 24 Hours[1]	47.5	20.9	13.9
Number of days above federal standard (>35 μg/m^3)	2	0	0

[1] Measurements taken from the Kearney Villa Road Station 6125a Kearney Villa Rd, San Diego.

[2] Measurements taken from the El Cajon -Lexington Middle School Station at 553 S First Street in El Cajon.

Source: CARB 2023.

California Code of Regulations

The California Code of Regulations, Title 20, Division 2, Chapter 5, Article 6, Section B, Appendix B includes the following air quality regulations applicable to the project:

(8) Air Quality

(A) The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.

(B) The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.

(C) A description of the control technologies proposed to limit the emission of criteria pollutants.

(D) A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.

(E) The emission rates of criteria pollutants and greenhouse gases (CO_2, CH_4, N_2O, and S_F6) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.

(F)(i) A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.

(ii) A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests,

(G) The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.

(H) One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution district.

(i) If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled “On-Site Meteorological Program Guidance for Regulatory Modeling Applications” (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.

(ii) The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.

(iii) An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:

(iv) A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM10) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO_x), sulfur dioxide (SO2), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM10) and particulate matter less than 2.5 microns in diameter (PM2.5)' from construction-related equipment;

(v) A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO_x, SO_2, CO and PM_{10} and $PM_{2.5}$) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions; and

(vi) A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard.

(vii) an air dispersion modeling analyses of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO_x, SO_2, CO, PM_{10} and $PM_{2.5}$.

(J) If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:

(i) The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and

(ii) Potential offset sources, including location, and quantity of emission reductions.

(K) a detailed description of the mitigation, if any, which an applicant may propose, for all project impacts from criteria pollutants that currently exceed state or federal ambient air quality standards but are not subject to offset requirements under the district's new source review rule.

Regional

Air Quality Management Plans

2020 Attainment Plan

In October 2020, the SDAPCD adopted the 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County (2020 Attainment Plan) and the 2020 Reasonably Available Control Technology Demonstration for the National Ambient Air Quality Standards for Ozone in San Diego County to demonstrate how the SDAPCD will reduce air pollutant emissions to achieve attainment of the NAAAQS for ozone (SDAPCD 2020a and 2020b). At this time, the 2020 Attainment Plan has been submitted to CARB for review, and if approved, will be submitted to the U.S. EPA as a revision to the California State Implementation Plan (SIP) for attaining the NAAQS for ozone. The 2020 Attainment Plan includes regionwide inventories of ozone precursors, a Reasonably Further Progress demonstration that shows emissions reductions during the years leading to attainment, an assessment of Reasonably Available Control Technology and Reasonable Available Control Measures, a vehicle mile traveled (VMT) offset demonstration, and contingency measures for use in the event that emissions controls do not achieve the needed reductions. The 2020 Attainment Plan determines (1) the SDAB can expect to reach attainment of the current NAAQS for ozone by 2032 with implementation of the proposed control measures and (2) the adoption of transportation control strategies and transportation control measures (TCMs) in San Diego County offset the projected growth in VMT and vehicle trips (SDAPCD 2020a).

2022 Regional Air Quality Strategy

Under state law, the SDAPCD is required to prepare a plan for air quality improvement for pollutants for which the SDAB is in nonattainment. The SDAPCD prepared the Regional Air Quality Strategy (RAQS) to address state requirements, pursuant to the California CAA of 1988 (California Health and Safety Code Section 39000 et seq.). The California CAA requires areas that are designated nonattainment of the CAAQS for ozone, carbon monoxide, sulfur dioxide, and/or nitrogen dioxide to prepare and implement state plans to attain the standards by the earliest practicable date (California Health and Safety Code Section 40911(a)). With the exception of the ozone CAAQS, each of these standards has been attained in the SDAB (SDAPCD 2016). Included in the RAQS are the TCMs prepared by the San Diego Association of Governments (SANDAG) that control emissions from mobile sources (SDAPCD 2023). The RAQS and TCMs set forth the steps needed to accomplish attainment of CAAQS for ozone. The most recent update of the RAQS and corresponding TCMs was adopted in 2023.

SDAPCD Rules

The SDAPCD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the project include the following:

Rules 20.1, 20.2, and 20.3 (New Source Review): These rules establish permitting standards for new stationary sources of air pollutant emissions and include requirements for the application of best available control technology.

Rule 50 (Visible Emissions): This rule prohibits the discharge of visible air pollutant emissions from various sources as determined by shade and opacity criteria based on the Ringelmann Chart.

Rule 51 (Nuisance): This rule prohibits the discharge of quantities of air contaminants or other material that causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

Rule 55 (Fugitive Dust Control): This rule prohibits construction and demolition activities from discharging visible dust emissions into the atmosphere beyond the property line. This rule also requires fugitive dust control measures to minimize and remove vehicle track-out associated with construction and demolition operations.

Rule 67.0.1 (Architectural Coatings): This rule establishes VOC content limits for a variety of architectural coatings, including 50 grams per liter for flat coatings, 100 grams per liter for nonflat and traffic marking coatings, and 150 grams per liter for nonflat-high gloss coatings.

Local

City of Escondido's General Plan

The City of Escondido's General Plan, adopted in 2012, lists several air quality and climate protection policies as part of its Resource Conservation Elements that supplement those of the SDAPCD. The following policies are applicable to the proposed project (City of Escondido 2012):

Air Quality and Climate Protection Policy 7.1.

Participate in regional planning efforts and coordinate with the San Diego Air Pollution Control District and San Diego Association of Governments in their efforts to reduce air quality impacts and attain state and federal air quality standards.

Air Quality and Climate Protection Policy 7.2.

Reduce regional greenhouse gas emissions through the following measures including, but not limited to:

a) Implementing land use patterns that reduce automobile dependence (compact, mixed-use, pedestrian, and transit-oriented development, etc.);

b) Reducing the number of vehicular miles traveled through implementation of Transportation Demand Management programs, jobs-housing balance, and similar techniques;

c) Supporting public transportation improvements;

d) Encouraging the use of alternative modes of transportation by expanding public transit, bicycle, and pedestrian networks and facilities;

e) Participating in the development of park-and-ride facilities;

f) Maintaining and updating the city's traffic signal synchronization plan;

g) Promoting local agriculture;

h) Promoting the use of drought-tolerant landscaping; and

i) Encouraging the use of non-polluting alternative energy systems.

Air Quality and Climate Protection Policy 7.3 Require that new development projects incorporate feasible measures that reduce construction and operational emissions.

Air Quality and Climate Protection Policy 7.4 Locate uses and facilities/operations that may produce toxic or hazardous air pollutants an adequate distance from each other and from sensitive uses such as housing and schools as consistent with California Air Resources Board recommendations.

Air Quality and Climate Protection Policy 7.5 Consider the development of park and ride facilities within the city in coordination with Caltrans.

Air Quality and Climate Protection Policy 7.6

Restrict the number and location of drive-through facilities in the city and require site layouts that reduce the amount of time vehicles wait for service.

Air Quality and Climate Protection Policy 7.7 Encourage businesses to alter local truck delivery schedules to occur during non-peak hours, when feasible.

Air Quality and Climate Protection Policy 7.8 Require that government contractors minimize greenhouse gas emissions in building construction and operations, which can be accomplished through the use of low or zero-emission vehicles and equipment.

Air Quality and Climate Protection Policy 7.9 Encourage city employees to use public transit, carpool, and use alternate modes of transportation for their home to work commutes.

Air Quality and Climate Protection Policy 7.10 Purchase low-emission vehicles for the city's fleet and use clean fuel sources for trucks and heavy equipment, when feasible.

Air Quality and Climate Protection Policy 7.11 Educate the public about air quality, its effect on health, and efforts the public can make to improve air quality and reduce greenhouse gas emissions.

2.5 Greenhouse Gas

Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that the USEPA has the authority to regulate motor vehicle GHG emissions under the federal CAA. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when CAA permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant

Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the USEPA and the National Highway Traffic Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the USEPA and the National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO_2 emissions standards for passenger cars and trucks of model years 2021-2026 such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the approximately five percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2020). To account for the effects of the SAFE Vehicles Rule, CARB released off-model adjustment factors on June 26, 2020 to adjust GHG emissions outputs from the EMFAC model (CARB 2020).

State Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Global Warming Solutions Act of 2006 (Assembly Bill 32 and Senate Bill 32)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 million metric tons (MMT of CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100. The 2017 Scoping Plan also

puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017a). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state.

The Draft 2022 Scoping Plan Update has been prepared to assess the progress towards the 2030 target as well as to outline a plan to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022).

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPO) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline California Environmental Quality Act (CEQA) processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The San Diego Association of Governments (SANDAG) is the regional planning agency for San Diego County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. The SANDAG Board of Directors adopted the final RTP with a SCS on October 28, 2011. The Sustainable Communities Strategy (SCS) is a new element of the 2050 Regional Transportation Plan (RTP). The legislation requires Metropolitan Planning Organizations (MPO) to prepare a SCS as part of their RTPs, along with the traditional policy, action, and financial requirements. The SCS lays out how the region will meet greenhouse gas (GHG) reduction targets set by the California Air Resources Board (CARB). CARB's targets call for the region to reduce per capita emissions seven percent by 2020 and 13 percent by 2035 from a 2005 baseline. There are no mandated targets beyond 2035 (SANDAG 2022).

Senate Bill 1383

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statutes of 2016) requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard (RPS) Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, former Governor Brown issued Executive Order (EO) B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

Local Regulations

City of Escondido Climate Action Plan (CAP)

2021 CAP

The City of Escondido (City) adopted an updated Climate Action Plan (CAP) on March 10, 2021. The CAP outlines strategies and measures that the City will implement to achieve its proportional share of State greenhouse gas (GHG) emissions reduction targets. The City has also developed a Climate Action Plan Consistency Review Checklist (CAP Consistency Checklist), in conjunction with the CAP, to provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA. This memorandum summarizes the methodology and application of a GHG screening threshold (set at 500 metric tons carbon dioxide equivalent [$MTCO_2e$] per year) for new development projects in order to determine if a project would need to demonstrate consistency with the CAP through the CAP Consistency Checklist. Projects that are consistent with the General Plan land use designation and exceed the GHG screening threshold are required to show consistency with the CAP through the CAP Consistency Checklist. The City's CAP meets the requirements under Section 15183.5 of the CEQA Guidelines as a qualified plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. This City's CAP contains a baseline inventory of GHG emissions for 2012, business-as-usual (BAU) projections of emissions to 2030 and 2035, a calculation of the City's targets based on a reduction from the 2012 baseline, and emission reductions with implementation of the CAP.

City of Escondido's General Plan

The City of Escondido's General Plan, adopted in 2012, lists several air quality and climate protection policies as part of its Resource Conservation Elements that supplement those of the SDAPCD. The policies that are potentially applicable to the proposed project are detailed in section 1.4.1 Air Quality above.

3 Impact Analysis

3.1 Methodology

Criteria pollutant and GHG emissions for projects construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.21. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The input data and subsequent construction and operation emission estimates for the proposed projects are summarized below and detailed in Appendix A. CalEEMod output files for the projects are included in Appendix B.

Construction Emissions

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and haul trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors.

Construction of the proposed Project was analyzed based on the applicant-provided construction schedule, equipment list, and construction related vehicle trips. The schedule was modeled by construction activity to best capture the construction that would occur. For this analysis, construction is assumed to begin in the first quarter of 2025 and end in the fourth quarter of 2025. Construction is anticipated to occur Monday through Saturday with equipment operating up to 8 hours per day. CalEEMod defaults for horsepower and load factors were used. Haul trips were modeled as heavy duty truck (HHDT) trips and conservatively assumed the default one-way distance of 20 miles used for haul trucks.

Construction equipment will incorporate Tier 4 final equipment. The analysis assumes that approximately 10,000 cubic yards of soil and rock material will be exported from the site during construction. This analysis assumes that the Project would comply with all applicable regulatory standards. In particular, the Project would comply with SDACPD Rule 55 to control fugitive dust emissions from construction activities. This rule is Modeled within CalEEMod by assuming that watering would occur twice a day. Detailed assumptions are included in Appendix A.

Operational Emissions

In CalEEMod, operational sources of criteria pollutant and greenhouse gas emissions include area, energy, and mobile sources. The first year of operation was assumed to be 2026 based on the provided construction schedule. The facilities were modeled as refrigerated warehouse of 3,040 square feet. The refrigerated warehouse land use was used to account for the energy requirements for maintaining a stable temperature for optimum battery effectiveness. There would be negligible area, annual water consumption, or solid waste generation source emissions associated with the Project since the Project would be typically unmanned and would require only limited maintenance equipment.[3] The facilities would be unmanned except during periodic maintenance visits where one or two workers would

[3] Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. With respect to this Project, area sources refer to consumer products (such as aerosol cleaners), and architectural coating (maintenance re-coating activities for battery storage).

perform routine maintenance on the facilities twice a week. The trip rate was conservatively adjusted to reflect four trips per day to represent the maximum potential number of daily trips to the defined project area for maintenance. CalEEMod inputs reflect 4 trips a day and 416 trips per year with vehicle miles traveled of 120 per day and 12,480 annually.

SF_6 Emissions

As discussed in *Section 2.1.2 Greenhouse Gases*, SDG&E is proactively working to remove SF_6 — a very potent GHG — from 900 distribution switches and deploy only non-SF_6 equipment by 2040. In 2021, SDG&E energized the first non-SF_6, 69 kV dry air circuit breaker at our Glencliff Substation (SDG&E 2021).

Project Decommissioning

At the end of the projects' useful life (anticipated to be 40 years), the BESS facilities would be decommissioned. Activities required for deconstruction of the on-site facilities would require similar types and levels of equipment as those used during the construction phase. Equipment is likely to have lower emissions due to cleaner equipment fleets available at the time of decommissioning. Therefore, decommissioning was not modeled separately and is conservatively assumed to be consistent with construction emissions estimates.

Methodology for Determining Health Risks

Health impacts associated with TACs are generally from long-term exposure. Typical sources of TACs include industrial processes such as petroleum refining operations, commercial operations such as gasoline stations and dry cleaners, and diesel exhaust. Health impacts from TAC emissions during the operational phase of the Project could result from the use of on-site diesel equipment during Project operation. In addition, the use of large-scale off-road diesel equipment during Project construction may result in a short-term increase of TAC emissions. DPM would be the TAC emitted in the largest quantity during construction and is the primary contaminant of concern for the Project.

However, emissions are relatively small in magnitude, temporary in nature (a combined project schedule of approximately one year) and are not expected to contribute to health risk. Additionally, the Project is assumed to apply Tier 4 emission controls on offroad equipment or implement alternative fueled equipment where feasible, further reducing emissions of TACs. No significant source of TAC emissions are expected during long-term operation of the Project because there are not any expected stationary sources of TACs nor any routine haul truck trips. The nearest sensitive receptor is approximately 500 feet to the west (Medical Center) and residential is 1,100 feet to the northwest. Dispersion of air pollutants to this distance would be expected to dissipate greatly, minimizing potential exposure to potential health risks. Thus, health risks were assessed qualitatively.

3.2 Significance Thresholds

The significance criteria used to evaluate the Project impacts to Air Quality and GHG emissions are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). For the purposes of the GHG analysis, a significant impact would occur if the Project would:

1. Conflict with or obstruct implementation of the applicable air quality plan?

2. Result in a cumulatively considerable net increase of any criteria pollutant for which the defined project areas region is non-attainment under an applicable federal or state ambient air quality standard?
3. Expose sensitive receptors to substantial pollutant concentrations?
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
5. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
6. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

3.3 Air Quality

Appendix G of the *CEQA Guidelines* (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to determine whether a project would have a significant impact on air quality. The SDAPCD recommends the use of quantitative thresholds to determine the significance of temporary construction-related pollutant emissions and long-term operational-related pollutant emissions. These thresholds are shown in Table 4.

Table 4 Project Thresholds

Pollutant	SPDAPCD (lbs/day)	Escondido (lbs/day)
ROG/VOCs	250	75
NO_x	250	250
CO	550	550
SO_x	250	250
PM_{10}	100	100
$PM_{2.5}$	67	55

Source: SDAPCD Rule 20.2. , City of Escondido Zoning Code Article 47.

The SDAPCD does not have a specified threshold for health risk impacts from toxic air contaminants (TACs). Rule 1200 for the SDAPCD relates to review of new sources for TACs. The rule states that new sources with a maximum incremental cancer risk greater than 10 in one million shall conduct the following to obtain an Authority to Construct or Permit to Operate: implementation of Toxics Best Available Control Technology (T-BACT) and a report in support of approving an Authority to Construct the project, which includes methods to reduce cancer risk. As the maximum incremental cancer risk greater than 10 in one million is used by SDAPCD to determine projects that must meet a high standard for Authority to Construct, that limit is used as a surrogate for the determination of impacts in this analysis.

The City of Escondido Zoning Code Article 47 also contains air quality thresholds. These are similar to the SDAPCD thresholds and are included in Table 4 above.

3.4 Greenhouse Gas

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines*, Section 15064[h][1]).

According to *CEQA Guidelines* Section 15183.5, project analysis can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP) in their white paper, *Best Practices in Implementing Climate Action Plans*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions (AEP 2018). The City of Escondido has adopted a qualified CAP with a screening level threshold and/or consistency checklist to determine significance (City of Escondido 2011). Significance for the proposed Project will be based on consistency with the City's CAP and consistency with CARB's 2022 Scoping Plan Update. According to the City's CAP, projects that are below the GHG screening threshold of 500 $MTCO_2e$ per year would not have significant impacts and would not need to demonstrate consistency with the CAP through the CAP Consistency Checklist.

3.5 Project-Level Air Quality Project Impacts

Threshold 1:	Would the project conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP?

Impact AQ-1 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE SAN DIEGO 2020 REGIONAL AIR QUALITY STRATEGY OR APPLICABLE PORTIONS OF THE SIP (I.E., THE 2020 ATTAINMENT PLAN). THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Pursuant to the federal CAA, the SDAPCD is required to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the 2022 RAQS and 2020 Attainment Plan (the SDAPCD's portion of the State's SIP), which are prepared by the SDAPCD for the region. Consistency with the RAQS and the 2020 Attainment Plan is determined by analyzing a project's consistency with the assumptions in the RAQS and the 2020 Attainment Plan. Thus, the emphasis of this discussion is to evaluate if the project's land uses would be consistent with or less intensive than the emission forecasts for the defined project area contained in the RAQS and 2020 Attainment Plan. The growth forecasts used in the RAQS and the 2020 Attainment Plan are developed by SANDAG. SANDAG forecasts are based on local general plans and other related documents that are used to develop population, employment, and traffic projections. The emissions inventory forecasts in the RAQS are based on the growth forecasts from the SANDAG San Diego Forward: The Regional Plan (2015), while the emissions inventory forecasts in the 2020 Attainment Plan are based on the demographic forecasts from the more recent SANDAG San Diego Forward: The 2019 Federal Regional Transportation Plan (2019).

The proposed Project is not anticipated to result in an increase in employment and would only require 4 weekly trips on average by two existing employees to the site. This would not induce population growth in the City. Therefore, the Project would not increase the population of or the employment inventory. Neither the City's existing population plus the Project's zero indirect population growth, or the City's existing employment inventory plus the Project's zero new employment opportunities would exceed the forecasts utilized in the RAQS or 2020 Attainment Plan. Furthermore, as detailed below under Thresholds 2, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is nonattainment under an applicable federal or state ambient air quality standard. In addition, the Project would comply with all existing and new rules and regulations as they are implemented by the SDAPCD, CARB, and/or the U.S. EPA related to emissions generated during construction. Therefore, the Project would not conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP (i.e., the 2020 Attainment Plan), and impacts would be less than significant.

Threshold 2:	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Impact AQ-2 THE PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS IN NONATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As discussed under Section 2.3, Air Quality Regulation, criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, PM_{10}, $PM_{2.5}$, sulfur dioxide, and lead. The SDAB is designated nonattainment for the NAAQS and CAAQS for ozone and the CAAQS for PM_{10} and $PM_{2.5}$. The SDAB is designated unclassifiable or in attainment for all other federal and state standards.

Construction and Decommissioning Emissions

Construction of the Project would require approximately 8 to 9 months of activity with the potential to generate air emissions. Project construction would generate air pollutant emissions from on-site equipment, entrained dust, off-road equipment uses, and vehicle emissions. Off-site emissions would be generated by construction worker daily commute trips and heavy-duty diesel haul truck trips. Construction of various phases would occur concurrent with the completion of some phases and subsequent to the initiation of others. The decommissioning emissions would be similar or slightly less than the construction activities. All decommissioning activities would adhere to the requirements of the appropriate governing authorities and be conducted in accordance with all applicable federal, state, and county regulations.

As shown in Table 5, emissions (from construction and decommissioning) would be below the applicable threshold for all construction phases. Therefore, Project construction activities would not violate any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Impacts would be less than significant.

Emissions estimates are conservative and based on the equipment usage assuming that all equipment operates for eight hours on a given day. This is an overestimation of activities as the daily activities will

change even within phasing and an average day's activities would result in substantially less daily emissions.

Table 5 Estimated Daily Construction Emissions

	Daily Emissions (lbs/day)[1]					
Activity Phase/Thresholds	**ROG**	**NO_X**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
1. Offsite access road	1	4	32	<1	<1	<1
2. Site preparation/grading	1	14	42	<1	3	1
3. Retaining wall	1	7	27	<1	<1	<1
4. Installation foundations/equipment	2	22	74	<1	2	1
5. Set modules, inverters, etc.	2	18	74	<1	2	1
6. Wiring installation/grading	2	10	59	<1	4	2
7. Commissioning & testing	1	7	35	<1	1	<1
Construction activity overlaps						
Activity 1, 2, 3,4	5	47	176	<1	6	2
Activity 3, 4, 5	5	47	174	<1	5	2
Activity 5, 6, 7	5	35	168	<1	7	3
Max Daily	**5**	**47**	**176**	**<1**	**7**	**3**
SDAPCD screening threshold	250	250	550	250	100	67
City of Escondido thresholds	75	250	550	250	100	55
Exceed threshold?	No	No	No	No	No	No

[1] Emissions include implementation of Tier 4 interim equipment and measures from Rule 55 to control fugitive dust.

Source: Appendix A.

Operational Emissions

Long-term emissions associated with operation of the Project would be primarily generated by weekly O&M visits. Operations of the Project would result in negligible long-term emissions from vehicle trips, area source emissions[4], and periodic re-coating of battery storage, as shown in Table 6. There are no energy sources associated with the operation of the Project. As shown in Table 6, new operational emissions would not exceed applicable thresholds for criteria pollutants; therefore, Project operation would not violate any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Impacts would be less than significant.

[4] Area source emissions are associated with emissions of consumer products used for cleaning and landscaping emissions and are conservatively included for this analysis.

Table 6 Estimated Operational Emissions

Source	Daily Emissions (lbs/day)					
	ROG	NO_X	CO	SO_x	PM_{10}	$PM_{2.5}$
Area	<1	<1	<1	<1	<1	<1
Energy	0	0	0	0	0	0
Mobile	<1	<1	<1	<1	<1	<1
Total	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
SDAPCD Screening Threshold	137	250	550	250	100	55
City of Escondido Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Exceed Threshold?	No	No	No	No	No	No

Source: See Appendix A.

Furthermore, energy storage systems, such as the proposed BESS, assist utilities like SDG&E in achieving criteria air pollutant emission reductions by providing the means of storing excess electricity (e.g., renewable solar energy) generated during off-peak hours for use during peak hours as an alternative to operating resources such as the peaker plant, which generates air quality emissions from fossil fuel combustion.[5] By expanding SDG&E's access to energy storage systems, the project would be expected to increase the stability and reliability of the existing electrical grid, thereby reducing the need for additional electricity to be generated by fossil fuel power plants during peak hours. The energy conservation achieved by the project would reduce fossil fuel consumption, thereby reducing criteria air pollutant emissions from the electricity sector. Impacts would be less than significant.

[5] Peaker plants are power plants that are operated only when demand for electricity is high (i.e., during times of peak demand). The Enterprise peaker plant is powered by natural gas.

Threshold 3:	Would the project expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations?

Impact AQ-3 THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS RELATED TO CARBON MONOXIDE HOTSPOTS OR TACS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and state eight-hour standard of 9.0 ppm (CARB 2016).

The entire SDAB is in conformance with the CAAQS and NAAQS for carbon monoxide, and most air quality monitoring stations no longer report carbon monoxide levels. As shown in Table 6, maximum daily carbon monoxide emissions during project operations would be less than one pound per day, which would not exceed the threshold of 550 pounds per day. These thresholds are designed to be protective of public health. Based on the low background level of carbon monoxide in the project area, ever-improving vehicle emissions standards for new cars in accordance with state and federal regulations, and the Project's negligible level of operational carbon monoxide emissions, the Project would not create new hotspots or contribute substantially to existing hotspots. Therefore, the project would not expose sensitive receptors to substantial carbon monoxide concentrations.

Toxic Air Contaminants

Health impacts associated with TACs are generally associated with long-term exposure. Due to the minimal emissions expected on-site from routine maintenance and off-site from employees commuting to the defined project area up to several times per week, there are no meaningful sources of TACs for the operating phase of the Project and therefore no reason to expect health impacts related to TACs. As such, the greatest potential for TAC emissions would be during construction and decommissioning which may result in a short-term increase of TAC emissions.

Construction and Decommissioning

The greatest potential for TAC emissions during construction and decommissioning would be from heavy equipment operations that generate DPM emissions. Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed Project would occur over approximately 8-9 months.

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005) recommends against siting sensitive receptors within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day, and within 1,000 feet of industrial land uses such as warehouses and distribution centers with more than 100 truck trips per day. While these siting distances are not particular to construction activities, the primary source of TAC emissions from both freeways and construction equipment is DPM. Therefore, for this analysis it is assumed that projects within 1,000 feet of sensitive receptors have the potential to result in a significant impact. The nearest residential receptors to the Study Area are over 1,100 feet away to the northeast and northwest. The nearest sensitive receptor (The Palomar Medical Center) is located approximately 500 feet to the west

of the Study Area. However, the project would implement the use of all Tier 4 or alternative equipment which reduced DPM emissions substantially from the standard fleet. Additionally, onsite idling of construction equipment and vehicles would be limited to a maximum of 5 minutes per event. With the implementation of Tier 4 equipment and the incorporation of regulatory idling requirements, the temporary construction and deconstruction activities are anticipated to have a less than significant impact on the closest sensitive receptors.

Operational

Sources of operational TAC's typically include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities. The proposed Project is not one of these uses, although use of consumer products, such as aerosol cleaning products, may result in minimal emissions of TACs. The proposed Project is not anticipated to include the operation of permitted emergency back-up generators, but this would be regulated under SDAPCD permitting regulations which require emissions to be at levels that would not expose sensitive receptors to substantial health risk. As such, operations of the Project would not be a substantial source of TACs. Therefore, the impacts would be less than significant.

Threshold 4:	Would the project create objectionable odors affecting a substantial number of people??

Impact AQ-4 THE PROJECT WOULD NOT GENERATE ODORS ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE DURING CONSTRUCTION OR OPERATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The State of California Health and Safety Code Sections 41700 and 41705 and SDAPCD Rule 51 prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. An unreasonable odor discernible at the property line of the defined project area would be considered a significant odor impact. The Project would generate oil and diesel fuel odors during construction from equipment use as well as odors related to asphalt paving. The odors would be limited to the construction period and would be intermittent and temporary. Furthermore, these odors would dissipate rapidly with distance from in-use construction equipment. With respect to operation, CARB's Air Quality and Land Use Handbook: A Community Health Perspective (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of odors (e.g., sewage treatment plants, landfills, recycling facilities, biomass operations, autobody shops, fiberglass manufacturing, and livestock operations). BESS site operations are not identified on this list and would not have odor sources during normal operations. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people, and impacts would be less than significant.

3.6 Cumulative Air Quality Impacts

The geographic scope for the cumulative air quality impact analysis is the SDAB. Because the SDAB is designated nonattainment for the NAAQS and CAAQS for ozone and the CAAQS for PM_{10} and $PM_{2.5}$, there is an existing adverse cumulative effect in the SDAB relative to these pollutants.

A project would have a significant cumulative impact if it is inconsistent with the applicable adopted federal and state air quality plans. As discussed under Impact AQ-2, the project would be consistent

with the SDAPCD screening and City of Escondido thresholds. Additionally, as discussed above under Impact AQ-1, the Project would not conflict with or obstruct implementation of the SDAPCD's RAQS and 2020 Attainment Plan. Therefore, the Project's contribution to cumulative air quality impacts related to criteria air pollutant emissions would be less than significant.

TAC emissions are a localized issue. In general, TAC concentrations are typically highest near the emissions sources and decline with increased distance. CARB recommends distances that should be incorporated when siting new sources or sensitive receptors near a source of TACs. This generally ranges from 500 to 1,000 feet depending on the source category (CARB 2005). Therefore, in the absence of any specific guidance from the SDAPCD, the potential cumulative impacts from TACs were analyzed based on a radius of 1,000 feet measured from the defined project area boundary. The nearest sensitive receptor (the Palomar Medical Center) is located approximately 500 feet to the west of the Study Area. However, the project would implement the use of all Tier 4 or alternative equipment which reduced DPM emissions substantially from the standard fleet. Additionally, onsite idling of construction equipment and vehicles would be limited to a maximum of 5 minutes per event. With the implementation of Tier 4 equipment and the incorporation of regulatory idling requirements, the combined (project plus other local project) emissions would not result in a cumulatively considerable impact to health risk.

As discussed under Impact AQ-3, construction, operation and decommissioning-related traffic is not anticipated to create a CO hotspot, as construction and decommissioning would be short-term there are negligible operational vehicle trips. Therefore, the Project's contribution to cumulative impacts to sensitive receptors related to CO hotspots would be less than significant.

3.7 Project-Level Greenhouse Gas Project Impacts

Threshold 1:	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Threshold 2:	Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact GHG-1 CONSTRUCTION, OPERATION AND DECOMMISSIONING OF THE PROJECTS WOULD DIRECTLY AND INDIRECTLY GENERATE GHG EMISSIONS. HOWEVER, THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE PLANS, POLICIES, AND REGULATIONS ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Emissions Quantifications

Construction and Decommissioning Emissions

Project-related construction emissions are confined to a relatively short period in relation to the overall life of the Project. Construction-related GHG emissions were quantified for informational purposes. Emissions were amortized over the lifetime of the Project (i.e., 40 years). It is assumed that decommissioning GHG emissions would be similar to construction GHG emissions. In actuality, decommissioning emissions would be lower than construction emissions due to the reduced earthwork required, and cleaner construction equipment during decommissioning of the BESS on the EEPP site. Table 7 shows that Project construction would result in a total of approximately 2,156 MT CO_2e and amortized GHG emissions of 54 MT CO_2e.

Emissions estimates are conservative and based on the equipment provided, assuming that all equipment operates for eight hours every day. This is an overestimation of emissions as the daily activities will change even within phasing and an average day's activities would result in substantially less daily emissions.

Table 7 Estimated Construction GHG Emissions

Construction Phase	Projects Emissions (MT CO_2e)
1. Offsite access road	142
2. Site preparation/grading	275
3. Retaining wall	97
4. Installation foundations/equipment	377
5. Set modules, inverters, etc.	625
6. Wiring installation/grading	393
7. Commissioning and testing	254
Total	**2,163**
Amortized (40 years)	**54**

Source: Appendix A.

Operational Emissions

The proposed Project would generate GHG emissions during operation from minimal area source, energy consumption and mobile emissions[6]. Operation-related GHG emissions were quantified for informational purposes and are shown in Table 8. As shown, the Project would generate approximately 35 MT of CO_2e per year, including the amortized construction and decommissioning emissions, would result in approximately 143 MT of CO_2e per year.

The Project would help address the limitations of the electric grid and the increasing demand for renewable energy by increasing storage capability which improves the reliability of the grid and makes it more resilient to disturbances and peaks in energy demand. As the use of renewable energy increases, the need for battery storage to maintain electrical supply during both peak demand and when the renewable systems are not generating electricity also increases. It is anticipated that the reduction in GHG emissions from non-renewable electricity generating facilities would more than offset the annual GHG emissions anticipated from the project. Therefore, the project is anticipated to result in a net benefit with respect to GHG emissions generation.

[6] Area sources for this project refer to consumer products (such as aerosol cleaners), and architectural coating (maintenance re-coating activities for battery storage).

Table 8 Annual GHG Emissions for Proposed Projects

Emission Source	Annual Emissions (MT CO_2e)
Operational	
Area	<1
Energy	16
Mobile	5
Waste	0
Water	0
Refrigerant	13
Total	**35**
Amortized Construction	**54**
Amortized Decommissioning	**54**
Total Annual Project Emissions	**143**

MT of CO_2e = metric tons of carbon dioxide equivalent. Numbers may not add up due to rounding.

Source: See Appendix A.

City of Escondido CAP

The City of Escondido has a qualified Climate Action Plan that meets the applicable state reduction goals for 2035. Therefore, a project that is consistent with a qualified CAP would be consistent with the state goals for reducing GHG emissions. The City of Escondido CAP has a screening level of 500 MT CO_2e annually. Projects that emit less than the screening level do not have to complete the Consistency Checklist. As shown in Table 8, estimated Project emissions without taking into account offsets from the reduction in non-renewable energy production, is 143 MT CO_2e, well below the 500 MT CO_2e screening threshold. Therefore, the proposed Project would be considered consistent with the City of Escondido CAP and impacts would be less than significant.

2022 Scoping Plan

The principal state GHG reduction plans and policies are AB 32, the California Global Warming Solutions Act of 2006, and the subsequent legislation, SB 32 and AB 1279. The goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. In 2022, the State passed AB 1279, which declares the State would achieve net-zero GHG emissions by 2045 and would reduce GHG emissions by 85 percent below 1990 levels by 2045. The latest iteration of the Scoping Plan is the 2022 Scoping Plan, which focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities. The 2022 Scoping Plan's strategies that apply to the proposed project include the following:

- Reducing fossil fuel use, energy demand and vehicle miles traveled (VMT);
- Building decarbonization; and
- Maximizing recycling and diversion from landfills

The proposed project would be consistent with these goals through the expected reduction of fossil fuel use by the implementation of the BESS storage facility that would store electrical energy for additional grid support during peak demand. In addition, the proposed building structures would not incorporate natural gas or propane, and the majority of the electrical needs would be offset by the project's operations. The proposed project would be served by and work with SDG&E to provide additional renewable energy through the BESS system installed onsite and would supplement SDG&E's requirement to increase its renewable energy procurement in accordance with SB 100 targets. Therefore, the proposed project would not conflict with the 2022 Scoping Plan and GHG impacts would be less than significant.

3.8 Greenhouse Gas Cumulative Impacts

The geographic scope for related projects considered in the cumulative impact analysis for GHG emissions is global because impacts of climate change are experienced on a global scale regardless of the location of GHG emission sources. Therefore, GHG emissions and climate change are, by definition, cumulative impacts. Thus, the issue of climate change involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. As discussed under Impact GHG-1, Project impacts related to GHG emissions would be less than significant since the Project would be consistent with the state plans for reducing GHG emissions. Therefore, the Project's contribution to cumulative GHG impacts would be less than significant and the Project would have a potential net benefit in the long-term.

4 References

Association of Environmental Professionals (AEP). 2018. Best Practices in Climate Action Planning https://www.califaep.org/docs/AEP_2018_White_Paper_Cap_Best_Practices.pdf (accessed January 2024).

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April. https://www.arb.ca.gov/ch/handbook.pdf (accessed June 2022).

_____. 2008. Climate Change Scoping Plan. Sacramento, CA. December 2008.

_____. 2014. AB 32 Scoping Plan Website. Updated June 2014. http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm (accessed July 2021).

_____. 2017a. California's 2017 Climate Change Scoping Plan. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed July 2021).

_____. 2017b. California's Advanced Clean Cars Midterm Review

_____. 2020. EMFAC Off-Model Adjustment Factors for Carbon Dioxide (CO_2) Emissions to Account for the SAFE Vehicles Rule Part One and the Final SAFE Rule. June 26, 2020. https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery (accessed July 2021).

_____. 2022. 2022 Scoping plan Documents. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents (accessed June 2022).

_____. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16, 2022. https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf (accessed August 2023).

_____. 2023a. "Overview Diesel Exhaust & Health" [webpage]. N.d. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health (accessed July 2023).

California Climate Change Center (CCCC). 2006. Climate Scenarios for California.

California Department of Food and Agriculture. 2022. California Agricultural Production Statistics. September 1, 2022. https://www.cdfa.ca.gov/Statistics/ (accessed August 2023).

California Department of Water Resources. 2023. California's Snowpack is Now One of the Largest Ever, Bringing Drought Relief, Flooding Concerns. April 3. https://water.ca.gov/News/News-Releases/2023/April-23/Snow-Survey-April-2023#:~:text=The%20manual%20survey%20recorded%20126.5,of%20DWR's%20water%20supply%20forecast. (accessed August 2023).

California Natural Resource Agency. 2019. "California's Fourth Climate Change Assessment Statewide Summary Report." January 16, 2019. https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf (accessed August 2023).

_____. 2021. "Draft California Climate Adaptation Strategy." October 2021. https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Climate-Resilience/SAS-Workshops/Draft-CA-Climate-Adaptation-Strategy-ada.pdf (accessed August 2023).

Escondido, City of. 2012. City of Escondido General Plan Chapter VII – Resource Conservation. https://www.escondido.org/general-plan.aspx (accessed January 2024).

_____. 2021. City of Escondido 2021 Climate Action Plan. https://www.escondido.org/climate-action-plan-documents.aspx. (accessed January 2024).

Fovell, Robert. 2002. The Santa Ana Winds. http://people.atmos.ucla.edu/fovell/ASother/mm5/SantaAna/winds.html. Accessed November 2021.

Intergovernmental Panel on Climate Change (IPCC). 2014. Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers - Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

_____. 2018. Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. https://www.ipcc.ch/sr15/ (accessed July 2021).

_____. 2021. Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)] Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf (accessed February 2022)

National Aeronautics and Space Administration. 2023. "Global Climate Change – Vital Signs of the Planet – Sea Level." https://climate.nasa.gov/vital-signs/sea-level/ (accessed July 2021).

_____. 2023. "Global Climate Change – Vital Signs of the Planet – Sea Level." Last modified: January 12, 2023. https://climate.nasa.gov/vital-signs/sea-level/ (accessed August 2023).

National Oceanic and Atmospheric Administration. 2022. Climate Change: Global Sea Level. April 19, 2022. https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level (accessed August 2023).

Parmesan, C. 2006. Ecological and Evolutionary Responses to Recent Climate Change. August 2006. https://courses.washington.edu/cfr590/climatechange/Parmesan%202006.pdf (accessed August 2023).

San Diego Association of Governments (SANDAG). 2015. San Diego Forward The Regional Plan.

_____. 2019. San Diego Forward: The 2019 Federal Regional Transportation Plan.

_____. 2022. Sustainable Communities Strategy. https://www.sandag.org/index.asp?projectid=360&fuseaction=projects.detail (accessed June 2022).

San Diego County Air Pollution Control District (SDAPCD). 2015. Fact Sheet: Smog in San Diego County. https://www.sdapcd.org/content/dam/sdapcd/documents/compliance/Fact%20Sheet-

Smog%20in%20SD.pdf. Accessed June 2022.

_____. 2016. Regional Air Quality Strategy, December 2016. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2016%20RAQS.pdf. Accessed November 2021.

_____. 2020a. 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County. October 2020. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/Att%20A%20(Attainment%20Plan)_ws.pdf (accessed June 2022).

_____. 2020b. 2020 Reasonably Available Control Technology Demonstration for the National Ambient Air Quality Standards for Ozone in San Diego County. October 2020. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/Att%20B%20(RACT).pdf (accessed June 2022).

_____. 2023. 2022 Regional Air quality Strategy (RAQS). https://www.sdapcd.org/content/sdapcd/planning.html#:~:text=The%20San%20Diego%20County%20Air%20Pollution%20Control%20District%20(District)%20has,for%20ozone%20in%20the%20future. (accessed January 2024).

_____. 2024. Attainment Status. https://www.sdapcd.org/content/sdapcd/planning/attainment-status.html (accessed January 2024).

San Diego Gas and Electric. 2021. Sustainability Strategy Update. October. https://www.sdge.com/sites/default/files/documents/Sustainability_2021.pdf (accessed February 2024).

United States Environmental Protection Agency (USEPA). 2022. Overview of Greenhouse Gases. https://www.epa.gov/ghgemissions/overview-greenhouse-gases (accessed June 2022).

_____. 2023a. Health Effect of Ozone Pollution. Last Modified: May 24,2023 https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution (accessed July 2023).

_____. 2023b. Basic Information about NO_2. Last Modified: July 25, 2023 https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects (accessed July 2023).

_____. 2023c. Basic Information about Carbon Monoxide (CO) Outdoor Air Pollution. Last Modified: July 13,2023 https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution#Effects (accessed July 2023).

_____. 2023d. Sulfur Dioxide Basics. Last Modified: February 16, 2023 https://www.epa.gov/so2-pollution/sulfur-dioxide-basics (accessed February 2023).

_____. 2023e. Basic Information about Lead Air Pollution. Last Modified: July 5, 2023 https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution#health%20effects (accessed July 2023).

_____. 2023f. Health and Environmental Effects of Hazardous Air Pollutants. Last Modified: March 27, 2023. https://www.epa.gov/haps/health-and-environmental-effects-hazardous-air-pollutants (accessed July 2023).

_____. 2023g. Climate Change Indicators: Global Greenhouse Gas Emissions. Last Modified: July 21, 2023. https://www.epa.gov/climate-indicators/climate-change-indicators-global-greenhouse-gas-emissions (accessed August 2023).

_____. 2023h. Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2021. April 15, 2023. https://www.epa.gov/system/files/documents/2023-04/US-GHG-Inventory-2023-Main-Text.pdf. (accessed August 2023).

World Meteorological Organization. 2013. A summary of current and climate change findings and figures: a WMO information note. March 2013. https://library.wmo.int/opac/index.php?lvl=notice_display&id=15892#.Wt9-Z8gvzIU (accessed January 2024).

_____. 2023. Greenhouse Gases. https://public.wmo.int/en/our-mandate/focus-areas/environment/greenhouse-gases (accessed March 2023).

This page intentionally left blank.

Appendix A

Assumptions and Calculations

Enterprise Bess
General Assumptions

Project Characteristics

Project Location	County	Title:	CalEEMod File Title
	San Diego	Date:	1/19/2024
Climate Zone	13		
Urbanization	Urban	Address	201 Enterprise Street, Escondido, California
Operational Year (Buildout)	Jan-25		
Construction Year	Sep-25		
Utility Company	SDG&E		

Project Land Use	**SF**	**Acres**	
Construction Area	3,040	0.37	Refrigerated Warehouse[1] (battery storage and switch yard)
Laydown area (grading only)	10,000	0.23	non-asphalt
Access Road	3,400	0.10	parking lot (no existing striping or painting based on google earth)
Trench	1,825	0.02	12.8 kV conductor line to Peaker GSU transformer
Total		0.72	

Facility Size	52	MW System	
Battery Container System	8	feet wide	(provided by Client)
	20	feet long	
	9.5	feet tall	
	160	sq ft per container	
	19	containers	

Enterprise Bess
Construction Assumptions

CalEEMod Defaults are assumed for modeling purposes unless specifically discussed in the Construction Assumptions below.

Project Schedule:

Hours: 7 am to 7 pm
8 hrs per day equipment usage
Monday thru Saturday

Construction	April	2023
	November	2023

Phase Name	Start Date	End Date	Days/Week	Total Days	Months
Offsite Access Road	1/1/2025	2/28/2025	6	51	2
Site Preparation/grading	1/1/2025	2/28/2025	6	51	2
Retaining Wall	2/1/2025	3/31/2025	6	50	2
Installation Foudations/Equipment	2/1/2025	3/31/2025	6	50	2
Set Modules, Inverters Etc	3/1/2025	5/31/2025	6	79	3
wiring Installation/grading	4/1/2025	6/31/2025	6	78	3
Commissioning & Testing	6/1/2025	8/31/2025	6	78	3

Note: Project construction will begin in the first quarter of 2025 and end in the fourth quarter of 2025, with eight months of construction activities occurring in up to 9 months due to weather or other unintended delays. The analysis uses the January 1, 2025 start date as a conservative emissions estimate.

Trips and VMT

PhaseName	Worker Trips	Vendor Trips	Haul trips/day
Offsite Access Road	20	0	4
Site Preparation/grading	100	0	64
Retaining Wall	20	0	4
Installation Foudations/Equipment	100	0	60
Set Modules, Inverters Etc	100	0	60
wiring Installation/grading	100	**0**	10
Commissioning & Testing	100	0	10

Enterprise Bess
Construction Assumptions

Offroad Equipment

Notes: *All Tier 4 or Tier 4 equivalent/electric*

Watering 2x per day minimum

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per	Hours Per Da	Horsepowe	Load Factor
Access Road	Tractors/Loaders/B	Diesel	Tier 4 Final	1	8	84	0.37
Access Road	Cement and Mortai	Diesel	Average	0	6	10	0.56
Access Road	Pavers	Diesel	Tier 4 Final	1	8	81	0.42
Access Road	Rollers	Diesel	Tier 4 Final	1	8	50	0.38
Access Road	Graders	Diesel	Tier 4 Final	1	8	148	0.41
Access Road	Off-Highway Trucks	Diesel	Tier 4 Final	3	8	376	0.38
Access Road	Paving Equipment	Diesel	Tier 4 Final	1	8	89	0.36
Site Preparation/Grading	Graders	Diesel	Tier 4 Final	2	8	148	0.41
Site Preparation/Grading	Tractors/Loaders/B	Diesel	Tier 4 Final	1	8	84	0.37
Site Preparation/Grading	Rubber Tired Dozer	Diesel	Average	0	6	367	0.4
Site Preparation/Grading	Rollers	Diesel	Tier 4 Final	1	8	50	0.38
Site Preparation/Grading	Air Compressors	Diesel	Tier 4 Final	2	8	50	0.48
Site Preparation/Grading	Off-Highway Trucks	Diesel	Tier 4 Final	3	8	376	0.38
Site Preparation/Grading	Sweepers/Scrubber	Diesel	Tier 4 Final	1	8	50	0.46
Elec. Wire Install/Finish Grading	Graders	Diesel	Tier 4 Final	1	8	148	0.41
Elec. Wire Install/Finish Grading	Rubber Tired Dozer	Diesel	Tier 4 Final	1	8	367	0.4
Elec. Wire Install/Finish Grading	Tractors/Loaders/B	Diesel	Tier 4 Final	2	8	84	0.37
Elec. Wire Install/Finish Grading	Air Compressors	Diesel	Tier 4 Final	1	8	50	0.48
Elec. Wire Install/Finish Grading	Cranes	Diesel	Tier 4 Final	1	8	367	0.29
Elec. Wire Install/Finish Grading	Off-Highway Trucks	Diesel	Tier 4 Final	4	8	376	0.38
Elec. Wire Install/Finish Grading	Rough Terrain Fork	Diesel	Tier 4 Final	1	8	96	0.4
Elec. Wire Install/Finish Grading	Sweepers/Scrubber	Diesel	Tier 4 Final	1	8	50	0.46
Elec. Wire Install/Finish Grading	Welders	Diesel	Tier 4 Final	2	8	50	0.45

Enterprise Bess
Construction Assumptions

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per	Hours Per Da	Horsepowe	Load Factor
Set Modules, Inverters & Switch Gea	Tractors/Loaders/B	Diesel	Average	0	8	84	0.37
Set Modules, Inverters & Switch Gea	Cranes	Diesel	Tier 4 Final	2	8	367	0.29
Set Modules, Inverters & Switch Gea	Forklifts	Diesel	Average	0	6	82	0.2
Set Modules, Inverters & Switch Gea	Air Compressors	Diesel	Tier 4 Final	1	8	50	0.48
Set Modules, Inverters & Switch Gea	Rubber Tired Dozer	Diesel	Tier 4 Final	2	8	367	0.4
Set Modules, Inverters & Switch Gea	Off-Highway Trucks	Diesel	Tier 4 Final	5	8	376	0.38
Set Modules, Inverters & Switch Gea	Generator Sets	Diesel	Tier 4 Final	1	8	50	0.74
Set Modules, Inverters & Switch Gea	Rough Terrain Fork	Diesel	Tier 4 Final	1	8	96	0.4
Set Modules, Inverters & Switch Gea	Sweepers/Scrubber	Diesel	Tier 4 Final	1	8	50	0.46
Set Modules, Inverters & Switch Gea	Welders	Diesel	Tier 4 Final	2	8	50	0.45
Retaining Wall	Tractors/Loaders/B	Diesel	Tier 4 Final	2	8	84	0.37
Retaining Wall	Cranes	Diesel	Tier 4 Final	1	8	367	0.29
Retaining Wall	Forklifts	Diesel	Tier 4 Final	1	8	82	0.2
Retaining Wall	Bore/Drill Rigs	Diesel	Tier 4 Final	1	8	83	0.5
Retaining Wall	Excavators	Diesel	Tier 4 Final	1	8	50	0.38
Retaining Wall	Rubber Tired Loade	Diesel	Tier 4 Final	1	8	150	0.36
Retaining Wall	Other Construction	Diesel	Tier 4 Final	2	8	50	0.42
Retaining Wall	Rough Terrain Fork	Diesel	Tier 4 Final	1	8	96	0.4
Retaining Wall	Skid Steer Loaders	Diesel	Tier 4 Final	1	8	71	0.37
Retaining Wall	Welders	Diesel	Tier 4 Final	1	8	50	0.45

Enterprise Bess
Construction Assumptions

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per	Hours Per Da	Horsepowe	Load Factor
Install Foundations & Equipment	Cranes	Diesel	Tier 4 Final	1	8	367	0.29
Install Foundations & Equipment	Forklifts	Diesel	Average	0	6	82	0.2
Install Foundations & Equipment	Tractors/Loaders/B	Diesel	Tier 4 Final	2	8	84	0.37
Install Foundations & Equipment	Rollers	Diesel	Tier 4 Final	1	8	50	0.38
Install Foundations & Equipment	Air Compressors	Diesel	Tier 4 Final	2	8	50	0.48
Install Foundations & Equipment	Rubber Tired Dozer	Diesel	Tier 4 Final	1	8	367	0.4
Install Foundations & Equipment	Off-Highway Trucks	Diesel	Tier 4 Final	5	8	376	0.38
Install Foundations & Equipment	Other Construction	Diesel	Tier 4 Final	2	8	50	0.42
Install Foundations & Equipment	Generator Sets	Diesel	Tier 4 Final	1	8	50	0.74
Install Foundations & Equipment	Rough Terrain Fork	Diesel	Tier 4 Final	2	8	96	0.4
Install Foundations & Equipment	Sweepers/Scrubber	Diesel	Tier 4 Final	1	8	50	0.46
Install Foundations & Equipment	Welders	Diesel	Tier 4 Final	2	8	50	0.45
Commissioning/Testing	Cranes	Diesel	Average	0	4	367	0.29
Commissioning/Testing	Forklifts	Diesel	Average	0	6	82	0.2
Commissioning/Testing	Tractors/Loaders/B	Diesel	Average	0	8	84	0.37
Commissioning/Testing	Off-Highway Trucks	Diesel	Tier 4 Final	4	8	376	0.38
Commissioning/Testing	Welders	Diesel	Tier 4 Final	1	8	50	0.45
Commissioning/Testing	Rollers	Diesel	Tier 4 Final	1	8	50	0.38

Material Movement

10,000	cubic yards	export
10	miles	to disposal site

Enterprise Bess
Operational Emissions

CalEEMod Defaults are assumed for modeling purposes unless specifically discussed in the Operational Assumptions below.

Mobile Sources	2 workers,	2x per week	Medium Duty	
	3.04	ksf building		
	4	trips per day		2x per week (Update)
	416	trips per year		
	0.76	trips per ksf		
	30	VMT/trip	(based on CalEEMod Defaults)	
	120	VMT/day		
	12480	VMT/year		

Area Sources No building constructed, no new area sources

Energy Use Energy storage system being implemented, default energy concumed for heating/cooling.

Water/Wastewater Fire water . Negligible annual use. No Wastewater generation

Solid Waste No new solid waste generation activities.

Stationary Sources None (for AQ purposes)

SF6 None

Project Operational Life	40	years

Enterprise Bess
Air Quality Emissions - Unmitigated

Estimated Construction Air Pollutant Emissions

	Estimated Construction Emissions (lbs/Day)					
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
1. Offsite Access Road	0.66	4.07	32.15	0.05	0.36	0.18
2. Site Preparation/grading	1.46	13.75	43.84	0.09	2.66	0.78
3. Retaining Wall	0.57	7.23	26.85	0.03	0.33	0.15
4. Installation Foudations/Equipment	2.08	21.60	73.59	0.13	2.27	0.81
5. Set Modules, Inverters Etc	2.10	18.20	73.64	0.14	2.28	0.82
6. wiring Installation/grading	1.70	10.22	59.28	0.09	4.00	1.79
7. Commissioning & Testing	1.11	6.96	35.38	0.05	1.16	0.37
Overlaps						
Phase 1,2,3,4	4.77	46.65	176.43	0.30	5.62	1.92
Phases 3,4,5	4.75	47.03	174.08	0.30	4.88	1.78
Phases 5,6,7	4.91	35.38	168.30	0.28	7.44	2.98
Max Daily	4.91	47.03	176.43	0.30	7.44	2.98
SDAPCD Screening Threshold	*250*	*250*	*550*	*250*	*100*	*67*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Estimated Construction Air Pollutant Emissions (for Report)

	Estimated Construction Emissions (lbs/Day)					
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
1. Offsite Access Road	1	4	32	<1	<1	<1
2. Site Preparation/grading	1	14	44	<1	3	1
3. Retaining Wall	1	7	27	<1	<1	<1
4. Installation Foudations/Equipment	2	22	74	<1	2	1
5. Set Modules, Inverters Etc	2	18	74	<1	2	1
6. wiring Installation/grading	2	10	59	<1	4	2
7. Commissioning & Testing	1	7	35	<1	1	<1
Overlaps						
Phase 1,2,3,4	5	47	176	<1	6	2
Phases 3,4,5	5	47	174	<1	5	2
Phases 5,6,7	5	35	168	<1	7	3
Max Daily	5	47	176	<1	7	3
SDAPCD Screening Threshold	*250*	*250*	*550*	*250*	*100*	*67*
City of Escondido Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**Yes**	**No**	**No**

Estimated Operational Air Pollutant Emissions

	Estimated Operational Emissions (lbs/day)					
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area	0.09	0.01	0.13	0.01	0.01	0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.02	0.02	0.30	0.01	0.08	0.02
Total	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
SDAPCD Screening Threshold	*250*	*250*	*550*	*250*	*100*	*67*
City of Escondido Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Estimated Operational Air Pollutant Emissions (For Report)

	Estimated Operational Emissions (lbs/day)					
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area	<1	<1	<1	<1	<1	<1
Energy	0	0	0	0	0	0
Mobile	<1	<1	<1	<1	<1	<1
Total	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
SDAPCD Screening Threshold	*250*	*250*	*550*	*250*	*100*	*67*
City of Escondido Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Enterprise Bess
Unmitigated GHG Emissions

Construction Emissions

Emission Source	Annual Emissions (MT CO_2e)
1. Offsite Access Road	142
2. Site Preparation/grading	275
3. Retaining Wall	97
4. Installation Foudations/Equipment	377
5. Set Modules, Inverters Etc	625
6. wiring Installation/grading	393
7. Commissioning & Testing	254
Total	2,163
Amortized Emissions	
40 years	54

Operational Emissions

Emission Source	Annual Emissions (MT CO_2e)
Area	<1
Energy	16
Mobile	5
Water	0
Waste	0
Refrig.	13
Total	35
Amortized Construction	54
Amortized Decommissioning	54
Total Operational Emissions	143

Appendix B

CalEEMod Output Files

Enterprise Bess Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Enterprise Bess
Construction Start Date	1/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	12.8
Location	33.122691919559614, -117.11776535183552
County	San Diego
City	Escondido
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6214
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Refrigerated Warehouse-No Rail	3.04	1000sqft	0.72	3,040	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.60	3.43	28.2	133	0.23	0.53	5.75	6.28	0.53	2.09	2.62	—	28,312	28,312	1.23	1.03	18.1	28,668
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.76	4.15	47.0	176	0.31	0.72	4.89	5.61	0.72	1.19	1.90	—	38,264	38,264	1.72	1.79	0.76	38,842
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.66	1.52	14.1	60.2	0.10	0.24	2.12	2.36	0.24	0.66	0.90	—	12,894	12,894	0.57	0.51	3.90	13,065
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.30	0.28	2.57	11.0	0.02	0.04	0.39	0.43	0.04	0.12	0.16	—	2,135	2,135	0.09	0.08	0.64	2,163

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.60	3.43	28.2	133	0.23	0.53	5.75	6.28	0.53	2.09	2.62	—	28,312	28,312	1.23	1.03	18.1	28,668
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.76	4.15	47.0	176	0.31	0.72	4.89	5.61	0.72	1.19	1.90	—	38,264	38,264	1.72	1.79	0.76	38,842
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.66	1.52	14.1	60.2	0.10	0.24	2.12	2.36	0.24	0.66	0.90	—	12,894	12,894	0.57	0.51	3.90	13,065
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.30	0.28	2.57	11.0	0.02	0.04	0.39	0.43	0.04	0.12	0.16	—	2,135	2,135	0.09	0.08	0.64	2,163

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.10	0.02	0.43	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	0.00	218	218	0.01	< 0.005	81.3	300
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.08	0.02	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	0.00	212	212	0.01	< 0.005	81.0	294
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.08	0.01	0.14	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	0.00	132	132	0.01	< 0.005	81.1	213
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.02	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	21.8	21.8	< 0.005	< 0.005	13.4	35.3

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.01	0.02	0.30	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	118	118	< 0.005	< 0.005	0.28	119
Area	0.02	0.09	< 0.005	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.54	0.54	< 0.005	< 0.005	—	0.55
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	98.8	98.8	0.01	< 0.005	—	99.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Total	0.04	0.10	0.02	0.43	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	0.00	218	218	0.01	< 0.005	81.3	300
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.01	0.02	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	113	113	< 0.005	< 0.005	0.01	114
Area	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	98.8	98.8	0.01	< 0.005	—	99.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Total	0.02	0.08	0.02	0.25	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	0.00	212	212	0.01	< 0.005	81.0	294
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	32.5	32.5	< 0.005	< 0.005	0.03	32.7
Area	0.01	0.08	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.27	0.27	< 0.005	< 0.005	—	0.27
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	98.8	98.8	0.01	< 0.005	—	99.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Total	0.02	0.08	0.01	0.14	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	0.00	132	132	0.01	< 0.005	81.1	213
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.38	5.38	< 0.005	< 0.005	0.01	5.42
Area	< 0.005	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.04	0.04	< 0.005	< 0.005	—	0.04
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	16.4	16.4	< 0.005	< 0.005	—	16.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.4	13.4
Total	< 0.005	0.02	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	21.8	21.8	< 0.005	< 0.005	13.4	35.3

3. Construction Emissions Details

3.1. Access Road (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.55	3.61	31.2	0.05	0.11	—	0.11	0.11	—	0.11	—	5,646	5,646	0.23	0.05	—	5,665
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.50	4.36	0.01	0.01	—	0.01	0.01	—	0.01	—	789	789	0.03	0.01	—	792
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.80	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	131	131	0.01	< 0.005	—	131
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.01	0.39	0.14	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	288	288	0.02	0.05	0.02	301
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	25.3	25.3	< 0.005	< 0.005	0.04	25.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	40.2	40.2	< 0.005	0.01	0.04	42.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.18	4.18	< 0.005	< 0.005	0.01	4.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.65	6.65	< 0.005	< 0.005	0.01	6.98

3.3. Site Preparation/Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	7.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,104	6,104	0.25	0.05	—	6,125
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.10	1.00	5.24	0.01	0.02	—	0.02	0.02	—	0.02	—	853	853	0.03	0.01	—	856
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	141	141	0.01	< 0.005	—	142

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.40	0.34	4.06	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	896	896	0.05	0.04	0.09	908
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.35	0.09	6.25	2.28	0.03	0.08	1.19	1.27	0.08	0.32	0.41	—	4,600	4,600	0.25	0.72	0.26	4,822
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.58	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	126	126	0.01	< 0.005	0.21	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.01	0.87	0.32	< 0.005	0.01	0.16	0.18	0.01	0.05	0.06	—	643	643	0.04	0.10	0.60	674
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.9	20.9	< 0.005	< 0.005	0.04	21.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.16	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	106	106	0.01	0.02	0.10	112

3.5. Elec. Wire Install/Finish Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02	1.02	8.97	54.3	0.09	0.19	—	0.19	0.19	—	0.19	—	9,417	9,417	0.38	0.08	—	9,449
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Architectural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.22	1.92	11.6	0.02	0.04	—	0.04	0.04	—	0.04	—	2,012	2,012	0.08	0.02	—	2,019
Dust From Material Movement	—	—	—	—	—	—	0.59	0.59	—	0.29	0.29	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.35	2.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	333	333	0.01	< 0.005	—	334

Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.40	0.31	4.63	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	949	949	0.04	0.03	3.56	963
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	0.02	0.94	0.35	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	719	719	0.04	0.11	1.56	755
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.88	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	193	193	0.01	0.01	0.33	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.21	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	154	154	0.01	0.02	0.14	161
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.0	32.0	< 0.005	< 0.005	0.05	32.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.4	25.4	< 0.005	< 0.005	0.02	26.7

3.7. Set Modules, Inverters & Switch Gear (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.32	1.32	12.0	66.9	0.11	0.24	—	0.24	0.24	—	0.24	—	11,968	11,968	0.49	0.10	—	12,009
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.32	1.32	12.0	66.9	0.11	0.24	—	0.24	0.24	—	0.24	—	11,968	11,968	0.49	0.10	—	12,009
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.28	2.60	14.5	0.02	0.05	—	0.05	0.05	—	0.05	—	2,590	2,590	0.11	0.02	—	2,599
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.47	2.64	< 0.005	0.01	—	0.01	0.01	—	0.01	—	429	429	0.02	< 0.005	—	430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.40	0.31	4.63	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	949	949	0.04	0.03	3.56	963
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.34	0.09	5.66	2.11	0.03	0.08	1.11	1.19	0.08	0.30	0.38	—	4,311	4,311	0.24	0.68	9.38	4,529
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.40	0.34	4.06	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	896	896	0.05	0.04	0.09	908
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.33	0.09	5.86	2.13	0.03	0.08	1.11	1.19	0.08	0.30	0.38	—	4,313	4,313	0.24	0.68	0.24	4,521
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.89	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	196	196	0.01	0.01	0.33	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	0.02	1.27	0.46	0.01	0.02	0.24	0.26	0.02	0.07	0.08	—	933	933	0.05	0.15	0.88	979
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	0.06	32.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.23	0.08	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.02	—	155	155	0.01	0.02	0.15	162

3.9. Retaining Wall (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.46	6.77	25.9	0.03	0.08	—	0.08	0.08	—	0.08	—	3,774	3,774	0.15	0.03	—	3,787

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.93	3.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	517	517	0.02	< 0.005	—	519
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.17	0.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	85.6	85.6	< 0.005	< 0.005	—	85.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	179	179	0.01	0.01	0.02	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.01	0.39	0.14	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	288	288	0.02	0.05	0.02	301
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.8	24.8	< 0.005	< 0.005	0.04	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.4	39.4	< 0.005	0.01	0.04	41.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.52	6.52	< 0.005	< 0.005	0.01	6.84

3.11. Install Foundations & Equipment (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.32	1.32	15.4	67.4	0.10	0.23	—	0.23	0.23	—	0.23	—	11,102	11,102	0.45	0.09	—	11,140
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	2.11	9.23	0.01	0.03	—	0.03	0.03	—	0.03	—	1,521	1,521	0.06	0.01	—	1,526
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.39	1.69	< 0.005	0.01	—	0.01	0.01	—	0.01	—	252	252	0.01	< 0.005	—	253
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.43	0.40	0.34	4.06	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	896	896	0.05	0.04	0.09	908
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.33	0.09	5.86	2.13	0.03	0.08	1.11	1.19	0.08	0.30	0.38	—	4,313	4,313	0.24	0.68	0.24	4,521
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.56	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	124	124	0.01	< 0.005	0.21	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.01	0.80	0.29	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	591	591	0.03	0.09	0.55	620
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.5	20.5	< 0.005	< 0.005	0.03	20.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	97.8	97.8	0.01	0.02	0.09	103

3.13. Commissioning/Testing (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	0.61	5.71	30.4	0.05	0.11	—	0.11	0.11	—	0.11	—	5,505	5,505	0.22	0.04	—	5,524
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.13	1.22	6.49	0.01	0.02	—	0.02	0.02	—	0.02	—	1,176	1,176	0.05	0.01	—	1,180
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	1.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	195	195	0.01	< 0.005	—	195
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.40	0.31	4.63	0.00	0.00	0.85	0.85	0.00	0.20	0.20	—	949	949	0.04	0.03	3.56	963
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	0.02	0.94	0.35	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	719	719	0.04	0.11	1.56	755
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.88	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	193	193	0.01	0.01	0.33	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.21	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	154	154	0.01	0.02	0.14	161
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.0	32.0	< 0.005	< 0.005	0.05	32.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.4	25.4	< 0.005	< 0.005	0.02	26.7

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	98.8	98.8	0.01	< 0.005	—	99.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	98.8	98.8	0.01	< 0.005	—	99.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	98.8	98.8	0.01	< 0.005	—	99.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	98.8	98.8	0.01	< 0.005	—	99.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.4

Total	—	—	—	—	—	—	—	—	—	—	—	—	16.4	16.4	< 0.005	< 0.005	—	16.4

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.54	0.54	< 0.005	< 0.005	—	0.55
Total	0.02	0.09	< 0.005	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.54	0.54	< 0.005	< 0.005	—	0.55
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.04	0.04	< 0.005	< 0.005	—	0.04
Total	< 0.005	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.04	0.04	< 0.005	< 0.005	—	0.04

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	81.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.4	13.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.4	13.4

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Access Road	Paving	1/1/2025	2/28/2025	6.00	51.0	—
Site Preparation/Grading	Grading	1/1/2025	2/28/2025	6.00	51.0	—
Elec. Wire Install/Finish Grading	Grading	4/1/2025	6/30/2025	6.00	78.0	—
Set Modules, Inverters & Switch Gear	Building Construction	3/1/2025	5/31/2025	6.00	79.0	—
Retaining Wall	Building Construction	2/1/2025	3/31/2025	6.00	50.0	—
Install Foundations & Equipment	Building Construction	2/1/2025	3/31/2025	6.00	50.0	—
Commissioning/Testing	Building Construction	6/1/2025	8/31/2025	6.00	78.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Access Road	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Access Road	Cement and Mortar Mixers	Diesel	Average	0.00	6.00	10.0	0.56
Access Road	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Access Road	Rollers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.38
Access Road	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Access Road	Off-Highway Trucks	Diesel	Tier 4 Final	3.00	8.00	376	0.38
Access Road	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36

Site Preparation/Grading	Graders	Diesel	Tier 4 Final	2.00	8.00	148	0.41
Site Preparation/Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Site Preparation/Grading	Rubber Tired Dozers	Diesel	Average	0.00	6.00	367	0.40
Site Preparation/Grading	Rollers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.38
Site Preparation/Grading	Air Compressors	Diesel	Tier 4 Final	2.00	8.00	50.0	0.48
Site Preparation/Grading	Off-Highway Trucks	Diesel	Tier 4 Final	3.00	8.00	376	0.38
Site Preparation/Grading	Sweepers/Scrubbers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.46
Elec. Wire Install/Finish Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Elec. Wire Install/Finish Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Elec. Wire Install/Finish Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Elec. Wire Install/Finish Grading	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	50.0	0.48
Elec. Wire Install/Finish Grading	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Elec. Wire Install/Finish Grading	Off-Highway Trucks	Diesel	Tier 4 Final	4.00	8.00	376	0.38
Elec. Wire Install/Finish Grading	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Elec. Wire Install/Finish Grading	Sweepers/Scrubbers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.46
Elec. Wire Install/Finish Grading	Welders	Diesel	Tier 4 Final	2.00	8.00	50.0	0.45
Set Modules, Inverters & Switch Gear	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37

Set Modules, Inverters & Switch Gear	Cranes	Diesel	Tier 4 Final	2.00	8.00	367	0.29
Set Modules, Inverters & Switch Gear	Forklifts	Diesel	Average	0.00	6.00	82.0	0.20
Set Modules, Inverters & Switch Gear	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	50.0	0.48
Set Modules, Inverters & Switch Gear	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40
Set Modules, Inverters & Switch Gear	Off-Highway Trucks	Diesel	Tier 4 Final	5.00	8.00	376	0.38
Set Modules, Inverters & Switch Gear	Generator Sets	Diesel	Tier 4 Final	1.00	8.00	50.0	0.74
Set Modules, Inverters & Switch Gear	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Set Modules, Inverters & Switch Gear	Sweepers/Scrubbers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.46
Set Modules, Inverters & Switch Gear	Welders	Diesel	Tier 4 Final	2.00	8.00	50.0	0.45
Retaining Wall	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Retaining Wall	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Retaining Wall	Forklifts	Diesel	Tier 4 Final	1.00	8.00	82.0	0.20
Retaining Wall	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	8.00	83.0	0.50
Retaining Wall	Excavators	Diesel	Tier 4 Final	1.00	8.00	50.0	0.38
Retaining Wall	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Retaining Wall	Other Construction Equipment	Diesel	Tier 4 Final	2.00	8.00	50.0	0.42
Retaining Wall	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Retaining Wall	Skid Steer Loaders	Diesel	Tier 4 Final	1.00	8.00	71.0	0.37
Retaining Wall	Welders	Diesel	Tier 4 Final	1.00	8.00	50.0	0.45
Install Foundations & Equipment	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29

Install Foundations & Equipment	Forklifts	Diesel	Average	0.00	6.00	82.0	0.20
Install Foundations & Equipment	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Install Foundations & Equipment	Rollers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.38
Install Foundations & Equipment	Air Compressors	Diesel	Tier 4 Final	2.00	8.00	50.0	0.48
Install Foundations & Equipment	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Install Foundations & Equipment	Off-Highway Trucks	Diesel	Tier 4 Final	5.00	8.00	376	0.38
Install Foundations & Equipment	Other Construction Equipment	Diesel	Tier 4 Final	2.00	8.00	50.0	0.42
Install Foundations & Equipment	Generator Sets	Diesel	Tier 4 Final	1.00	8.00	50.0	0.74
Install Foundations & Equipment	Rough Terrain Forklifts	Diesel	Tier 4 Final	2.00	8.00	96.0	0.40
Install Foundations & Equipment	Sweepers/Scrubbers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.46
Install Foundations & Equipment	Welders	Diesel	Tier 4 Final	2.00	8.00	50.0	0.45
Commissioning/Testing	Cranes	Diesel	Average	0.00	4.00	367	0.29
Commissioning/Testing	Forklifts	Diesel	Average	0.00	6.00	82.0	0.20
Commissioning/Testing	Tractors/Loaders/Backhoes	Diesel	Average	0.00	8.00	84.0	0.37
Commissioning/Testing	Off-Highway Trucks	Diesel	Tier 4 Final	4.00	8.00	376	0.38
Commissioning/Testing	Welders	Diesel	Tier 4 Final	2.00	8.00	50.0	0.45
Commissioning/Testing	Rollers	Diesel	Tier 4 Final	1.00	8.00	50.0	0.38

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Access Road	—	—	—	—
Access Road	Worker	20.0	12.0	LDA,LDT1,LDT2
Access Road	Vendor	0.00	7.63	HHDT,MHDT
Access Road	Hauling	4.00	20.0	HHDT
Access Road	Onsite truck	0.00	—	HHDT
Site Preparation/Grading	—	—	—	—
Site Preparation/Grading	Worker	100	12.0	LDA,LDT1,LDT2
Site Preparation/Grading	Vendor	0.00	7.63	HHDT,MHDT
Site Preparation/Grading	Hauling	64.0	20.0	HHDT
Site Preparation/Grading	Onsite truck	0.00	—	HHDT
Retaining Wall	—	—	—	—
Retaining Wall	Worker	20.0	12.0	LDA,LDT1,LDT2
Retaining Wall	Vendor	0.00	7.63	HHDT,MHDT
Retaining Wall	Hauling	4.00	20.0	HHDT
Retaining Wall	Onsite truck	0.00	—	HHDT
Install Foundations & Equipment	—	—	—	—
Install Foundations & Equipment	Worker	100	12.0	LDA,LDT1,LDT2
Install Foundations & Equipment	Vendor	0.00	7.63	HHDT,MHDT
Install Foundations & Equipment	Hauling	60.0	20.0	HHDT
Install Foundations & Equipment	Onsite truck	0.00	—	HHDT
Set Modules, Inverters & Switch Gear	—	—	—	—
Set Modules, Inverters & Switch Gear	Worker	100	12.0	LDA,LDT1,LDT2
Set Modules, Inverters & Switch Gear	Vendor	0.00	7.63	HHDT,MHDT
Set Modules, Inverters & Switch Gear	Hauling	60.0	20.0	HHDT
Set Modules, Inverters & Switch Gear	Onsite truck	0.00	—	HHDT

Elec. Wire Install/Finish Grading	—	—	—	—
Elec. Wire Install/Finish Grading	Worker	100	12.0	LDA,LDT1,LDT2
Elec. Wire Install/Finish Grading	Vendor	0.00	7.63	HHDT,MHDT
Elec. Wire Install/Finish Grading	Hauling	10.0	20.0	HHDT
Elec. Wire Install/Finish Grading	Onsite truck	0.00	—	HHDT
Commissioning/Testing	—	—	—	—
Commissioning/Testing	Worker	100	12.0	LDA,LDT1,LDT2
Commissioning/Testing	Vendor	0.00	7.63	HHDT,MHDT
Commissioning/Testing	Hauling	10.0	20.0	HHDT
Commissioning/Testing	Onsite truck	0.00	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Elec. Wire Install/Finish Grading	0.00	0.00	4,560	1,520	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Access Road	0.00	0.00	0.00	0.00	0.00
Site Preparation/Grading	0.00	10,000	51.0	0.00	—
Elec. Wire Install/Finish Grading	0.00	0.00	78.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	4.00	0.00	0.00	416	120	0.00	0.00	12,480

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	4,560	1,520	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	61,204	589	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

Screen	Justification
Land Use	Based on Project Information (See assumptions)
Construction: Construction Phases	Based on provided project information
Construction: Off-Road Equipment	Based on project provided information; A 0 for number of equipment means this is default CalEEMod equipment that is not used.

Construction: Trips and VMT	Information based on project information
Construction: Paving	based on project information
Operations: Fleet Mix	Based on project provided information
Operations: Energy Use	based on project specific information
Operations: Water and Waste Water	based on project specific information
Operations: Solid Waste	based on project specific information